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ABSTRACT

Together, these four newsletters contain 36 articles devoted to adult literacy research and practice and the relationship between them. The following articles are included: "A Productive Partnership" (Richard J. Murnane, Bob Bickerton); "Welcome to 'Focus on Basics'" (Barbara Garner); "Applying Research on the Last Frontier" (Karen Backlund, Kathy Bond); "Understanding Quantitative Research about Adult Literacy" (Thomas Valentine); "An Odyssey for an Answer" (Grace Temple); "Research with Words: Qualitative Inquiry" (Glynda Hull); "Finding Out for Myself" (Eileen Barry); "On 'Reading' Teacher Research" (Susan L. Lytle); "Knowing, Learning, Doing: Participatory Action Research" (Juliet Merrifield); "A New Center for Research on Adult Learning and Literacy" (John Comings, Cristine Smith); "Learning to Love Reading" (Donna Earl); "Building a Research Agenda" (John Comings); "There's Reading...And Then There's Reading" (Victoria Purcell-Gates); "Models of Reading and the ESOL (English for Speakers of Other Languages) Student: Implications and Limitations" (David E. Eskey); "Rediscovering Themselves: Learning to Read for Survival" (Melissa Nieves); "What Silent Reading Tests Alone Can't Tell You" (John Strucker); "The ESOL Adult and the Push towards Meaning" (Judith Rance-Roney); "Reversing Reading Failure in Young Adults" (Mary E. Curtis, Ann Marie Longo); "Reconceptualizing Roles: Mathematics and Reading" (Mary Jane Schmitt); "Building Community and Skills through Multilevel Classes" (Judy Hofer, Pat Larson); "Welcome to 'Focus on Basics'" (Barbara Garner); "Multiple Levels, Multiple Responsibilities" (Lenore Balliro); "The Multilevel Umbrella" (Miriam Burt); "Technology Melts Classroom Walls" (Susan K. Cowles); "A Foundation for Learning Math" (Jan Phillips); "When the 'Multi' Is Generational and Cultural" (Eileen Barry); "Multilevel Literacy Planning and Practice" (Cathy Shank, Lynda Terrill); "Focus on Research: Longitudinal

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Study of Adult Learners" (Barbara Garner); "Poe, Alcoholism, and ESOL" (Lynne McCarthy, Bernadette Comeau); "Welcome to 'Focus on Basics'" (Barbara Garner); "The Theory Behind Content-Based Instruction" (Thomas G. Sticht); "Too Little Time and Too Many Goals: Suggested Remedies from Research on Workplace Literacy" (Larry Mikulecky); "Hooked on Learning: The Internet Poetry Project Changes Teacher and Students" (Linda W. Parrish); "The Process and the Product: Involving Students in Choosing Content and Developing Materials Leads to Change" (Char Ullman, Aliza Becker); "The Impact of Content-Based Instruction: Three Studies" (Barbara A. McDonald); and "Focus on Research: Health and Literacy" (Barbara Garner). (MN)

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Focus on Basics

volume 1

1997

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Focus on Basics

World Education • Connecting Research to Practice • Volume 1, Issue A • February 1997

INSIDE THIS ISSUE

1
A Productive Partnership
Richard J. Murnane and Bob Bickerton

5
Applying Research on the Last Frontier
Karen Backlund with Kathy Bond

7
Understanding Quantitative Research about Adult Literacy
Thomas Valentine

12
An Odessey for an Answer
Grace Temple

13
Research with Words: Qualitative Inquiry
Glynda Hull

17
Finding Out for Myself
Eileen Barry

19
On *Reading* Teacher Research
Susan L. Lytle

23
Knowing, Learning, Doing: Participatory Action Research
Juliet Merrifield

A Productive Partnership

by Richard J. Murnane and Bob Bickerton

Rarely do researchers and practitioners engage in serious dialogue. NCSALL enticed us, an economist and an adult educator, out of conventional patterns when it requested that we jointly write an article on a research study that raised questions about the value of the GED credential. This article describes the results of our discussions.

In 1995, the University of Chicago economist James Heckman, working with graduate student Stephen Cameron, published a paper entitled "The Nonequivalence of High School Equivalents." The main message was that young male recipients of the GED credential did not fare as well in the labor market as young males with conventional high school diplomas. The findings were widely reported in both the broadcast and print media.[1]

Our reactions to this article were quite different. **Murnane:** I found the research compelling, in part because Heckman is one of the country's most widely respected labor economists and the research seemed carefully done, and in part because the central finding replicated a pattern reported by David Passmore in the September 1987 American Council on Education *GED Research Brief*. Indeed, I was puzzled by the acrimonious interchanges between Heckman and representatives of

continued on page 3

Focus on Basics is the quarterly publication of the National Center for the Study of Adult Learning and Literacy. It presents best practices, current research on adult learning and literacy, and how research is used by adult basic education teachers, counselors, program administrators, and policy makers. *Focus on Basics* is dedicated to connecting research with practice, to connecting teachers with research and researchers with the reality of the classroom, and by doing so, making adult basic education research more relevant to the field.

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Welcome to *Focus on Basics*

Dear Readers,

Welcome to *Focus on Basics*, and thank you to all the state ABE directors and literacy resource centers who are working with us to distribute *Focus on Basics* as widely as possible.

Focus on Basics is dedicated to fostering constructive partnerships between research and practice. We urge practitioners to become voracious and critical consumers of research, and researchers to seek practitioner input at every step of the research process. So, for our first issue, we asked leading scholars in the field of adult literacy and learning to write, not about their substantive work, but about research itself. Why do it? What can it teach us? What should we be wary of? How can we best use it? What happens when researchers and practitioners join together to examine research findings? We asked outstanding practitioners to address how they use research and how they do their own. We asked scholars, staff developers, and practitioners to advise us on these stories, and, as our editorial board, they helped us guide the authors.

The results are provocative. The writers challenge us to question what we study, why, and how. They remind us that one study never tells the whole story, and that we must be cautious about extrapolating findings from one group to another. At the same time, they demonstrate the enormous resource research provides. For example, Richard Murnane and Bob Bickerton reveal that resources will be even richer as practitioners and researchers work more closely together. Tom Valentine gives us a quick reference that enables us to understand the methodology and findings sections of quantitative research. Karen Backlund and Kathy Bond show us how information gained from research made the difference in an Alaska Learning Program math class; Grace Temple demonstrates how, if you're willing to look, the answer might be out there. And Eileen Barry opens the doors to her classroom, taking us with her as she conducts her own research.

Just as your classes are a work in progress, so is *Focus on Basics*. Please let us know what you liked about this issue and what you would like to see in the future. We want your thoughts on subject, format, length, as well as your reactions to the substantive content of the articles. We're hoping to launch a "Letters to the Editor" column and will not shy from controversy, so let us know what you think. If you do write a letter to the editor, please include a name, address, and phone number so we can contact you easily.

The next issue of *Focus on Basics*, due out in May, is on reading, followed by multi-level classrooms in September, and thematic content-based instruction in December. We are looking for writers and editorial board members and are working hard to represent the geographic, programmatic, and ethnic diversity of the field. Writers are chosen based on the relevance of their work to the field, and editorial board members are selected based on their experience with the theme of an issue. If you're interested in either writing or serving as a board member, contact us at World Education, and see page 11 for more on the editorial board!

We at the National Center for the Study of Adult Learning and Literacy are very excited about launching *Focus on Basics* with this first issue. We hope you enjoy it as well.

Sincerely,

Barbara Garner

Barbara Garner
Editor

Authors

Karen Backlund is the JOBS Coordinator at Adult Learning Programs of Alaska, where she has worked since 1992. Backlund, involved in ABE since 1984, has also worked as an instructor, trainer, and program manager in ABE programs in Minnesota and Louisiana.

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Bob Bickerton, Director of Adult Education at the Massachusetts Department of Education, has worked as an ABE volunteer coordinator, teacher, teacher-trainer, curriculum developer, and program director in numerous community-based organizations. Bickerton has also served as legislative chair for two national ABE organizations: National Council of State Directors and the American Association of Adult and Continuing Education. Bickerton has been in the ABE field for 26 years.

Kathy Bond has been an ABE instructor at Adult Learning Programs of Alaska since 1991. She has a Bachelor of Arts degree in Psychology. She currently teaches Mathematics, Grammar and Writing on the Computer, and Computer application classes. Bond has also taught all manners of GED subjects in the Open Study Lab.

John Comings is Director of the National Center for the Study of Adult Learning and Literacy. He has 25 years of experience working in adult education in Asia, Africa, the Caribbean, and the United States. His present research and writing is focused on factors that lead to achievement and persistence in adult literacy and secondary education programs.

Glynda Hull is Associate Professor of Education at the University of California, Berkeley. Hull has conducted numerous qualitative studies related to adult education, including research on vocational programs, literacy, and high performance workplaces. She co-authored with James Paul Gee and Colin Lankshear *The New Work Order: Behind the Language of the New Capitalism* (1996, Westview), and her edited collection, forthcoming from SUNY Press, *Changing Work, Changing Workers: Critical Perspectives on Language, Literacy, and Skills*.

continued on page 6

Partnership *continued from page 1*

the American Council on Education (ACE) since the main finding of the Cameron-Heckman study did not differ from a finding reported six years earlier in an ACE publication.

Bickerton: I was troubled initially by the articles on the Cameron-Heckman study because they had the potential to diminish the value of the GED and appeared to contradict my own observations and experiences. As someone involved in ABE policy, I needed to know more. I must admit that I was particularly interested in the study's weaknesses, which I felt were confirmed by the ACE GED Testing Service argument that the study was flawed because it concentrated on young males, disregarding the reality that most GED recipients receive this credential later than their high school graduate peers receive theirs. When subsequent interviews with the study's authors continued to focus on decontextualized statements such as "no significant difference between the earnings of GED recipients and drop-outs" without serious attention to its limitations, I presumed that this was, in fact, an unbalanced attack on a credential important to millions of adults as their second chance opportunity to pursue their dreams. This made me even less receptive to the study, disconnecting me from findings which could help inform the improvement of our policies and programs.

Asking the Right Questions

When adult educators read research on the GED, the questions they tend to have in their minds are: Do individuals who lack a high school diploma benefit from obtaining a GED? In what ways — economically, socially, personally? Is the answer different for men than for women? For immigrants than for native-born Americans? What challenges must GED recipients overcome to obtain benefits from the credential?

These questions are not Cameron and Heckman's primary focus. Instead, their attention, and the focus of the media coverage, was on a different question: Do young male GED recipients fare as well in the labor market as young males with conventional high school diplomas? As we worked on this article, we came to understand that the media's lack of interest in the differences among these questions contributed to some of the controversy generated by the Cameron-Heckman paper, which concluded by suggesting that the GED system was no longer of use.

Comparing GED and Grads

We came to agree that Cameron-Heckman's research comparing labor market outcomes of young male GED holders and young male HS diploma holders has important strengths. The outcome measures, hourly wages and annual earnings at ages 25 and 28, are clearly important. The research design is solid: Cameron-Heckman compared labor market outcomes for males with different educational credentials after using statistical techniques to account for differences in family backgrounds. We came to agree that Cameron and Heckman are right: young males who obtain a GED prior to the age of 25 do not fare as well in the labor market at ages 25 and 28 as males with conventional high school diplomas do.

At the same time, we came to agree that, while the media paid little attention to the limits of the Cameron-Heckman sample, they are important to keep in mind. Cameron-Heckman provide no information on the value of the GED credential to females. Nor did the study provide information on the value of the GED for adult immigrants, who constitute a large part of the clientele for adult education, or for adults who obtain a GED after the age of 21 (about 36 percent of recipients nationally).

Economic Benefits?

An important question to adult educators and to us is whether school dropouts gain economic benefit from obtaining a GED. A reliable answer requires a comparison of the labor market outcomes of GED recipients with the labor market outcomes GED recipients would have had, had they not obtained the credential. Of course, by definition, this counter-factual comparison group does not exist. The conventional research strategy is to use dropouts who do not get a GED

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(permanent dropouts) as the comparison group. This strategy has some flaws because, on average, GED recipients completed more years of schooling before dropping out than did permanent dropouts and they had higher grades and test scores while in school. As a result, the GED recipients probably would have fared better in the labor market even without the GED credential than permanent dropouts. Researchers typically use statistical methods to "control" for differences between GED recipients and permanent dropouts to isolate a "GED effect," although this can be difficult and may not be completely satisfactory.

Cameron and Heckman used the best of conventional methods to explore whether young male dropouts benefit from obtaining a GED. Contrary to the summaries provided in most media reports, they viewed their results as inconclusive, writing "the data strongly reject the hypothesis that GED recipients are the labor market equals of high school graduates. The same data do not reject the hypothesis that high school dropouts and GED recipients are indistinguishable." A closer look at the evidence indicates, however, that GED recipients lie between dropouts and graduates in their economic standing.

So, what does it mean when the study concludes, "there is no significant difference between the earnings of high school dropouts and GED recipients?" The question is especially important in light of Cameron and Heckman's finding that, in the sample they investigated, the wages of young male GED recipients were 3 to 11.5 percent higher, on average, than those of dropouts without this credential. While these differences are modest relative to the difference between the average wages of GED recipients and conventional high school graduates, they could be large enough to be important to school dropouts. The practice of sound research requires, however, that we explore whether the differences between the average wages of GED recipients and permanent dropouts could have surfaced by "chance." In this study, we find that there is so much variation among the wages of GED recipients and among the wages of permanent dropouts that we cannot reject the possibility that these higher wages are just a chance occurrence. The inability to reject the hypothesis that the differences could have arisen by chance is what the statement "not statistically different from zero" means. Keep in mind, however, that tests of "statistical significance" are highly dependent on sample size, and the size of the Cameron and Heckman sample is modest (643 males). Had the sample size been larger, the standard errors associated with these point estimates would have been smaller, and it is possible that the difference between the average wages of GED recipients and those of permanent dropouts would have been statistically significant.

Lessons from the Dialogue

Our discussions taught us a number of lessons that we believe can help researchers design more valuable research and help adult educators make sense of and learn from research:

- **Read the research report, not only the media coverage.** Our discussions of the Cameron-Heckman paper convinced us that the media coverage was incomplete, and in many cases misleading. A careful reading of the paper also reveals that some findings are open to alternative interpretations. For example, Cameron and Heckman report that GED recipients are more likely to participate in postsecondary education than permanent dropouts are, and that college pays off for them. Cameron and Heckman interpret this finding as indicating that most of the positive effects of GED acquisition on labor market outcomes stem from the postsecondary education, not from the GED credential itself. Many adult educators would agree, but would emphasize that improving access to postsecondary education is a critical benefit of the GED.
- **Clarify what questions are being addressed.** Most media reports of the Cameron-Heckman paper did not distinguish between the two very different questions the paper addressed: how do young male GED recipients fare as compared to high school graduates and how do they compare to dropouts who do not complete the GED.
- **Identify the comparison group.** Some studies simply compare labor market outcomes for GED recipients before they obtain the credential with outcomes after receipt. This is unsatisfactory because labor market outcomes typically improve with age irrespective of whether one obtains an educational credential or not. The relevant question is whether the improvement with age is greater for GED recipients than it would have been had these dropouts not obtained the credential. To explore this question, a comparison group is needed to provide an estimate of what labor market outcomes would have been had the GED recipients not obtained the credential. It is important to identify the comparison group and ask whether it seems to be a close match for what GED recipients would have been like had they not obtained the credential.
- **Identify the sample.** In general, the track record of programs to improve labor market outcomes for disadvantaged young males is disappointing. The track record of programs to help disadvantaged females is somewhat more optimistic. One lesson here is the importance of identifying the sample used in a particular study and recognizing that it is inappropriate to generalize results beyond the group from which the sample is drawn.
- **Pay attention to the time period that was studied.** The Cameron-Heckman study used labor market data from the mid-1980s, a period when the transformation of the American economy was in full bloom. A part of this transformation was a decline in labor market opportunities for less skilled workers, including permanent dropouts, GED recipients, and conventional high school graduates. One indication of this transformation is the 25 percent decline since 1979 in the real earnings of 30 year old male high school graduates. This decline has prompted K-12 educators to push for higher educational standards and for examinations that would certify that high school graduates are prepared to compete for good jobs in an economy in which problem solving skills, communication skills, and the ability to use computers are increasingly valued.

We agree that adult educators need to respond to the decline in the earnings of school dropouts in a similar fashion by considering whether changes in the content and format of our curricula and

the GED examinations would provide students and employers with better evidence that recipients possess the skills needed in high wage jobs. Can we be content with a GED science test that is based primarily on reading comprehension? Is a testing format in which the answer to each question is one of five pre-defined choices appropriate in a world in which the good jobs require problem diagnosis and significant communication skills? The introduction of the essay section on the GED Writing Skills Test in 1988 was one promising response to the changing economy. Additional responses will also be needed as the skills needed to obtain good jobs — jobs that pay enough to support children — continue to grow.

New Research

The central point of agreement that we reached after extensive discussion is that more research is needed on the role the GED plays in improving labor market outcomes for different groups in a changing economy, and on the impact of the GED in other arenas. With support from NCSALL, one of us (Murnane) is in the midst of a large scale study with colleagues at Harvard to develop better methods of defining an appropriate comparison group against which to compare the labor force outcomes of GED recipients.

By writing this article, we have learned that the knowledge and perspectives that each of us brings to discussions of the GED are relevant to the other person's work. We plan to explore how to structure future dialogues that will both improve the quality of the work on the GED, and make it of the greatest use in improving the quality of adult education in the United States. And it is abundantly clear to both of us that policy and practice will be greatly enhanced the more frequently practitioners, researchers, and policy leaders come together to create a more complete, accurate, and useful body of knowledge upon which to build these critically important services. ■

Endnotes

1 S. Cameron and J. Heckman. "The Nonequivalence of High School Equivalents." *Journal of Labor Economics*, 11 (June 1993): 1–47. ●

Applying Research on the Last Frontier

Kathy Bond puts research on math anxiety into practice in Fairbanks, Alaska

by Karen Backlund, with Kathy Bond

Adult Learning Programs of Alaska has a strong commitment to seeking out and applying research to its instructional work with adult basic education students. We obtain research information by attending workshops, reading research journals such as* Adult Education Quarterly *and the* Journal of Research in Mathematics Education, *and exchanging ideas with other practitioners. We tap into world-wide resources by using the Adult Numeracy Practitioners Network on the World Wide Web. The hallmark of our application of research to practice is the Math Anxiety class created and taught by one of our instructors, Kathy Bond. She tells her story here.

My name is Kathy Bond. When this story began, I had been teaching math for Adult Learning Programs of Alaska for a couple years and, though I had little formal training in mathematics instruction, I had a good grasp of the subject matter. My students' math levels ranged from fractions, decimals, and percents to precollege algebra and geometry. My students themselves were diverse—men, women, ages 16 – 60, representing a variety of ethnic and language groups. To make sure I accommodated a range of learning style preferences, I used a variety of methods, my repertoire of techniques and approaches expanding with experience. I showed students the relationship between different aspects of mathematics, for example, how fractions, decimals, and percents are different expressions for the same thing. I demonstrated how mathematics can be applied to real life by teaching about perimeter, area, and volume using a garden plot as the medium. Perimeter is useful when measuring for fencing; knowledge of area is essential when spreading fertilizer; understanding the concept of volume is helpful when ordering top soil. An Alaskan application of the Pythagorean theorem involves calculating how long a ladder you need if your have to climb onto a roof to remove snow. I was reaching most students, but a handful seemed unable to grasp even the most basic concepts I was trying to teach, especially fractions. Despite all my efforts, a mysterious force seemed to be interfering with these individuals' ability to retain mathematics instruction.

About this time, Sheila Tobias, an education analyst with a research group based in Arizona, presented her research findings on math anxiety at the University of Alaska-Fairbanks. I attended her workshop and began reading as much I could about math anxiety, including *Overcoming Math Anxiety* by Tobias, and *Where Do I Put the Decimal Point?* by Elisabeth Rueda

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Last Frontier, continued from page 5

and Sue Sinenberg. The key findings on math anxiety are that, because of earlier negative experiences, some students develop emotional fears that block their ability to do math. I began to think that perhaps math anxiety was what was impeding learning for the students I could not reach with my usual instructional techniques. I decided to try to demystify math to help people cope with math anxiety. Then, I hoped, they could move on to learn the concepts.

New Course

In addition to incorporating some math anxiety concepts into my more advanced math courses, I developed a new course, Building Confidence in Math, which typically lasts for eight to ten weeks, meeting once a week for two hours. Drawing upon Tobias's work, I spend the first few sessions reviewing the psychological aspects of math anxiety and how to deal with them. Via a math autobiography, I invite my students to recall their negative experiences and relate them to what was happening developmentally in their lives at the time. I point out that, as children, they were not in control of their learning situations. I encourage them to acknowledge what was and to let go as much as possible, reminding them that they can now take control of their lives and learning. They have the right to be treated well and to advocate for their needs. These, along with the belief that one can ask for what one needs and give oneself credit for what one knows, are all tenets of a "Math Bill of Rights" created by Sandra Davis of the University of Minnesota. Finally, I remind students that they don't need to like math to do it. They may not completely overcome anxiety, but they can learn to compensate and successfully work with math despite it.

Since students with math anxiety often feel isolated, as if they are the only ones who can't do math, one strategy I employ is group work. I also present different approaches to solving math problems and encourage students to offer their own insights as well. I remind students that it is appropriate to use their senses and intuition when working with math. I interject humor into the class sessions, use female-oriented activities and games to illustrate my points, and, in so doing, desensitize my students to their fears. I even include math etiquette and trivia in the course. An example of math trivia is that there are lots of things you think you need to know to do math, such as what the terms dividend and quotient mean, but the truth is, you can do math without ever knowing these definitions. By studying math anxiety research, in addition to increasing my array of math teaching techniques, I gained a theoretical framework from which to work.

Of course, the courses have not all gone smoothly. Sometimes we have had difficulty recruiting enough students to make a class. Creating a safe and trusting learning environment, which is critical to fostering consistent attendance and resultant group cohesion, has taken some time. Retention has increased steadily and exceeds that of many other classes in our program. Using information I gather from my students' math journals, I adjust on a daily basis. I use other forms of classroom and course evaluation to inform future classes and courses.

Kathy's studies and class have increased all the ALPA instructors' awareness of how anxiety and fear can have an impact on learning, whether it's fear of testing, math, writing, or computers. We are also more cognizant of the role that confidence and esteem play in learning. When we learn something by reading research, or by trial and error, we share it with each other and find ways to adapt what we have learned to our classrooms. ❖❖

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Sheila Tobias, *Overcoming Math Anxiety* (New York and London: W.W. Norton & Company, 1993).

The Journal for Research in Mathematics Education. National Council of Teachers of Mathematics. 1906 Association Drive, Reston, VA 20191-1502. ❖

Authors, continued

Susan L. Lytle, an associate professor of education at the University of Pennsylvania Graduate School of Education, directs the master's and doctoral programs in Reading, Writing, Literacy and The Philadelphia Writing Project. She has been working with adult literacy educators for over a decade in inquiry-based collaborative field-university partnerships focused on issues of literacy, culture, and social justice.

Juliet Merrifield has been a researcher and an adult educator for 20 years. Formerly Director of the Center for Literacy Studies at the University of Tennessee, she now lives and works as a consultant in Brighton, England, and is a Visiting Research Fellow at the Centre for Continuing Education, University of Sussex.

Richard Murnane, an economist, is a professor at the Harvard Graduate School of Education. For the last three years Murnane has been studying whether acquisition of a GED improves labor market outcomes for school dropouts. Murnane's newest book, with M.I.T. economist Frank Levy, is entitled *Teaching the New Basic Skills* (Free Press, 1996).

Cristine Smith, Coordinator of World Education's work for the National Center for the Study of Adult Learning and Literacy, coordinates dissemination activities under NCSALL and directs a NCSALL – sponsored study exploring the impact of staff development in adult basic education. Smith also oversees World Education's South Asia projects.

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Thomas Valentine has been in the ABE field for 20 years. He has been a teacher and program director, and now he co-directs ABE staff development for Georgia and is an associate professor of adult education at the University of Georgia. ❖❖

Understanding Quantitative Research about Adult Literacy

by Thomas Valentine

Adult educators make hundreds of small decisions every hour they are in the classroom – decisions about what to say, how to spend time, what materials to use. When they are new to the job, educators find these decisions difficult, but, through trial and error, they build up personal, experience-based knowledge about what works and what doesn't work. Gradually, they begin to recognize cause and effect relationships between what they do and how students respond. They develop and continually refine personal theories of how education works, and they use those theories to guide their decision-making when they approach a novel situation or a new adult learner.

Quantitative researchers engage in much the same task, but in a far more formal way. They attempt to identify and describe patterns of behavior that are clear enough and regular enough to guide educational action. Researchers try to clarify the seeming chaos of activity that surrounds educators by discovering patterns that naturally occur, and they trust that educators will be able to use this information to improve practice.

Although many working adult educators find quantitative research too esoteric to be understood fully, its apparent complexity is offset by the clear and highly patterned logic on which it is based. Educators need surprisingly little knowledge to get the gist of the articles they read. In this article, I will provide working educators with a few basic tools that will strengthen their ability to make sense of quantitative research. Instead of presenting the type of detailed, technical information that appears in statistics books, I'll attempt to provide information that will enable working educators to critically evaluate the quality and logic of quantitative studies that might have a bearing on how they do their jobs.

The Three Most Common Purposes of Quantitative Research on Adult Literacy

Most quantitative research studies on adult literacy attempt to accomplish one of three broad purposes: description, theory testing, and theory generating. I'll deal with them one by one.

- **Description:** Many quantitative studies attempt simply to describe a phenomenon of importance to literacy educators. The many studies examining the extent of illiteracy in the United States fit into this category, as do federally-sponsored studies of program practices in adult education. Such studies vary enormously in sophistication, but, in all cases, they are non-experimental in nature and, in most cases, they are guided by broad research questions rather than by formal hypotheses. Their intent is to describe rather than to "prove." The basic logic of this category of research is best expressed by the question, "What's going on?" or "How much of this thing is going on?"

- **Theory Testing:** Although "theory" is a ponderous sounding term, I actually mean it in its broader and somewhat looser sense. A provisional understanding of the phenomenon that is being studied. Such "theories" range from well-informed, but untested hunches to formal, empirically based theories of the psychological or sociological sort. In all of these cases, researchers approach their work with expectations about the phenomenon under investigation and these expectations are used to shape the design and interpret the results of the research study. This category of research most closely approximates pure statistical reasoning, and most experimental research and most research that states formal hypotheses fit into this category. The logic of this category of study can best be expressed as, "I think this is what's going on. Am I right?"

- **Theory Generating.** This category of research is really a subset of descriptive research, and studies in this area tend to be of a nonexperimental, exploratory nature. This type of research is undertaken when researchers do not have a clear conception of the phenomenon under

investigation, yet, for any number of reasons, they believe that the phenomenon is of importance to adult education. In such cases, they collect data which will allow them to formulate models or theories that capture the essence of the phenomenon. An exploratory study attempting to "map out" the nature and impact of adult learners' academic self-image on learning progress would fit into this category. The intent of theory generating studies, as the title of this category suggests, is to develop a well-articulated understanding of the phenomenon under investigation. The logic of such studies might be expressed as, "What's the best way of thinking about this thing?"

Although quantitative studies can have markedly different purposes, they all use the same basic "tools." The following sections will explore the basic concepts and common analyses necessary for an understanding of quantitative research.

Basic Underlying Concepts

A basic tenet of perceptual psychology is that human perception is based on variation. If you were to look at a pure white wall that had no texture or irregularities, you would see nothing at all. If, in that wall, there was even a tiny crack, your eyes would be drawn immediately to it. In making sense of what you were looking at, your mind would automatically create a concept called "crackedness." You could then talk about any section of the wall in terms of its crackedness, with some sections having crackedness and some not.

All research builds on variations, and in statistical research, it is called variance. Things that vary, like crackedness in the above example, are called variables. Variance is the concept that underpins all statistical research.

The variance contained in variables can be described statistically in many different ways, some of which are quite familiar. Frequencies, expressed as numbers or percentages, are readily understood, because they amount to a simple tallying of the values of a variable. When a group of students is described as 55 percent women and 45 percent male, the variable is gender, the values are women and men, and the frequencies are the numbers themselves.

Means, or averages, are another common statistical expression that everyone more or less understands. The mean of a group of scores for comparable measures is commonly used as a way of talking about the group with a single number. However, the mean by itself can be a rather poor description of a group, particularly

> *"I think this is what's going on. Am I right?"*

when the scores, taken together, do not arrange themselves into a predictable pattern. Consequently, you will rarely encounter a mean in statistical reports that is not accompanied by a standard deviation. The standard deviation indicates how spread out the scores are for that group, and it is a direct indication of variance.

Variance itself is rarely the primary focus of statistical research. Most statistical research focuses, instead, on some form of covariation, on whether two or more variables systematically vary together. For example, one would expect hours spent in instruction and learning progress to co-vary quite well, while height and learning progress would not meaningfully co-vary.

Although they appear very different on the surface, most of the statistical tests commonly encountered in adult education research reports represent attempts to establish covariation among variables. In all of these common statistical tests, if the numbers suggest that there is in fact a relationship that can't be attributed to chance, the researcher will conclude that the co-variation is statistically significant. Statistical significance indicates that there is a relationship between variables, but it doesn't necessarily mean that the relationship is strong enough to be important to working educators. Once significance is established, readers must use their non-statistical judgment to decide whether that relationship is strong enough to be considered substantively meaningful. For example, a statistically significant but weak relationship between years of schooling and learner motivation might be considered unimportant for program planning.

The statistical test actually used in any given study depends, to a great extent, on the types of variables being used. There are two distinct types of variables commonly used in statistical research about adult literacy. The first type of variable is called a categorical variable. Categorical variables vary in type or nature, but not in degree; they can't be rank ordered in any meaningful way. Gender and race are common categorical variables. The second common type of variable is called a continuous variable. Continuous variables vary in degrees, and can be expressed as a numerical scale. Test scores, satisfaction, and income all are continuous variables.

The final important concept underpinning statistical research is sampling. In most cases, researchers are attempting to identify patterns of behavior, cognition, or attitudes that apply to large numbers of people, but they only have access to a much smaller number. This small number of people is called a sample, and the sample is supposed to be a representative subsection of the larger group or population. When the findings based on a sample are applied to a population, it is called statistical inference or generalization, and there are strict rules that allow researchers to generalize with confidence. Most of these rules require that the sample be randomly drawn from the population of interest.

Unfortunately, adult education researchers find it nearly impossible to follow the rules of pure statistics. Drawing true random samples from the population of interest is usually

prohibitively expensive, so researchers often rely on convenience samples. In conducting experimental research, researchers quickly find that adult learners are not malleable enough to be randomly assigned to various "treatment" conditions, so researchers attempt to "match" treatment groups on selected variables. Despite these patchwork remedies, more often than not the compromises are severe enough to preclude any legitimate statistical inference whatsoever.

However, it's possible to glean useful information even from studies using highly compromised statistical procedures. By carefully studying the sample used in a study, educators can determine the extent to which that sample lines up with the people with whom they work. If the findings are clear enough, the sample reasonably large, and the characteristics of the sample similar to the people in their educational setting, educators can use logical inference to predict the probable implications of the findings for their own work. Consequently, work done with a nonrandom sample in Boston might have very real implications for educators working in Baltimore but none at all for educators working in rural South Dakota.

Common Statistical Procedures

In preparing this article, I looked over the articles that were recently published in journals of interest to adult literacy educators and found that surprisingly few statistical procedures were used with any frequency. In fact, if readers can understand the logic and statistics of eight basic procedures, they can understand the methodology of more than 90 percent of the quantitative pieces they encounter. I'll attempt to give a quick conceptual overview of these eight procedures and will briefly discuss the actual meaning of the most important statistics they employ.

Reading Quantitative Research

Ask Yourself:

- *What was their question?*
- *Who and how many did they study?*
- *Does the population and setting resemble yours?*
- *What data did they gather?*
- *What did they find?*
- *What did they conclude?*
- *Does this jive with your experience?*
- *What else might account for these findings?*
- *If these findings are true, what does that suggest for your work?*

- **Procedure #1: The T–Test** A common task in research is to decide whether or not two groups are different from one another on a given variable. An example of such research might address the question: "Do female students attend more hours than male students?"

In this example, the researcher is examining the relationship between one categorical variable (gender) and one continuous variable (attendance hours). If you were asked to draw a picture of the data obtained from such studies, you might draw a bar graph with a bar for each group of students and the height of the bar determined by whatever continuous variable you are examining.

In determining whether or not the groups differ on the variable in question, researchers compare group means to see if they are different enough to be considered "truly different." The most common test of mean difference for two group situations is the *t test*. In reporting the results of a t-test, researchers usually will present the mean for each group, the *t* statistic, and a *p* value. Although statisticians interpret all of these figures, you can make sense of the findings by looking only at the means and the *p*. Understanding the means is easy, but the *p* can be more troublesome. Although it has a different meaning in pure statistical reasoning, most educational researchers use it to determine whether the difference between the means is big enough to be considered "real." Usually, if the *p* is less than .05 (or .01 depending on sample size and other factors), the researcher will conclude that the means are significantly different from each other and that the findings are statistically significant.

- **Procedure #2: Analysis of Variance** Analysis of variance (or ANOVA) is a logical extension of the t-test. It is used in situations in which the study's categorical variable has more than two possible values. You are asking the question: "Do some groups

TABLE 1 Simple Correlations (n=2007)

Data from the National Longitudinal Survey of Youth, 1984

	Heldback	Poverty	Teen Mom	
Heldback	1.000			
Poverty	0.16***	1.00		
Teen Mom*	0.16***	0.20***	1.00	
Dad Home*	-.001***	-.[illegible]**	-0.28***	
Gender	0.13***	[illegible]	0.02	
Black	0.05**	0.26***	0.17***	
Hispanic	0.01	0.01	0.28	
Dropout	0.15***	0.34**	0.22***	
GED	0.04	0.4	0.14***	

*p<0.10; **p<0.05; ***p<0.01

When reading a table, p values are usually represented as asteriks and the key is often located under the table.

SAMPLE

groups attend more regularly than others?" would require the researcher to compare the attendance hours of more than two groups (e.g., African Americans, Asians, Persons of Hispanic Origin). The logic is basically the same as that of the t-test, and the data in such a situation also lend themselves to a bar graph display. However, because there are more groups, more statistics are reported. Researchers using ANOVA typically report an *F* and a *p* for the *F*. These statistics answer the broad question "Is something going on in the interaction between these variables?" If this *p* indicates significance (i.e., if it is less than .05 or .01), then the researcher will also report a series of *t*s, each with an accompanying *p* value. These *t*s and *p*s test each possible comparison between the means of the groups involved (e.g., African Americans versus Persons of Hispanic Descent, African Americans versus Asians, etc.), and they can be interpreted using just the *p*s, as in the discussion of the t-test, above.

• **Procedure #3: Correlational Analyses.** Correlation is a direct test of co-variation that requires the use of two continuous variables. Data from such studies can be graphically represented by a regression line. This line is like the trend lines that newspapers and magazines use to depict economic or population growth. Conceptually, the statistics used in correlational research tell us how well a single line can represent the measured co-variation, and thus, how much we can count on the fact that as one of our variables goes up or down, the other will follow suit. A study attempting to measure the relationship between reading ability and attendance hours (both of which are continuous variables) is an example of correlational research.

Correlational research simply asks whether or not two variables are related to one another without introducing the notion of causation. Research reports of correlational research typically present two statistics (*r* and an accompanying *p* value). The magnitude of the *r* indicates how strongly the two variables covary. The possible values for *r* range from 0.00 to +/- 1.00, with 0.00 representing no relationship and +/- 1.00 representing perfect correlation. (A negative correlation coefficient suggests that as one variable goes up, the other goes down, as might be the case with learner motivation and absenteeism.)

There is no magic number that will tell you whether or not a correlation is "good." A great deal depends on the extent to which one would expect the relationship to occur. A correlation between an intelligence test score and a reading test score should be high, so a correlation of .85 might be considered uninformative. However, a correlation of .35 between hours spent reading and the number of children in the household might mean that educators need to find a way of helping parents find quiet time for reading.

• **Procedure #4: Regression.** Regression is very like correlation except that the researcher is willing to assert that Variable A causes, explains or predicts Variable B, rather than the other way around or, as is the case with correlation, simply stating that they are related. The example about parents' reading I used in the above paragraph is more properly thought of as a regression, since it is more plausible to believe that the more children you have, the harder it is to find quiet reading time, than to believe that reading is an effective means of birth control. Studies using regression also report an *r* and a *p*, and they are interpreted pretty much they way they are for correlation.

• **Procedure #5: Multiple Regression.** Multiple regression extends the logic of simple regression to allow for the simultaneous use of more than one variable in explaining another variable. A researcher attempting to explain attendance hours in terms of both reading ability and learner motivation would use multiple regression to ask the question "Taken together, how well do reading ability and motivation explain attendance hours?" The benefit of using multiple regression in such a case, as opposed to doing two simple regressions, is that multiple regression takes into account the fact that reading ability and motivation might be related to one another; in such a case, adding together the results of two simple regressions would overstate the combined impact. Multiple regression research typically reports *R-Square* and an accompanying *p* value. *R-Square* represents the proportion of the variance in the outcome variable (in the example, attendance hours) that is explained by a combination of the predictor variables (e.g., reading ability and motivation). In evaluating the results of multiple regression, *R-Square* makes real world sense, since it is a direct indicator of the explanatory power of the variables being used to explain the outcome variable.

- **Procedure #6: Factor Analysis.** Factor analysis employs statistics to sort a large number of variables into a smaller number of conceptually meaningful categories. If researchers used a 60-item questionnaire designed to measure learner motivation, they might wish to get a clearer understanding of the components of motivation contained in that questionnaire. By discovering patterns in the ways in which questionnaire items correlate with one another, factor analysis would allow the researchers to distill the 60 items down into a more manageable number of "factors" that, taken together, increases our understanding of learner motivation. Through factor analysis, the researchers might find that motivation has three major component factors: The intrinsic will to learn, external pressures to "finish school," and the hope of economic advancement. Factor analysis requires the reporting of numerous statistics and the use of many technical terms, but the basic idea is a simple one and the results are easy to understand if you ignore the detail.
- **Procedure #7: Chi Square Analysis.** Sometimes, researchers are faced with the task of examining the relationship between two categorical variables. In adult literacy research, a study examining the effects of gender on dropout rate would require that the researcher discover whether men or women have a disproportionate tendency to drop out. If there is no gender effect, one would expect the percentage of dropouts who are women would be nearly the same as the total percentage of women in the study. The *chi-square* statistic tests the degree to which such expectations hold true. In addition to the *chi-square* statistic itself, researchers using this analysis also report a *p*. As was described in earlier sections, a *p* that is less than .05 or .01 indicates statistical significance.
- **Procedure #8: Reliability** Reliability is not really a stand alone statistical procedure, yet it tends to be mentioned briefly in most quantitative pieces. Reliability analysis is used to determine the stability of the instruments used to measure the variables in a study. If you gave your students the same reading test three times, and each time the score was radically and unpredictably different, you would conclude that the test was unreliable. Reliability is reported as a coefficient with a theoretical range of 0.00 and 1.00, with the latter representing perfect reliability. Researchers usually strive for reliability coefficients greater than .80, but occasionally they will settle for coefficients as low as .60.

Closing Comments

Statistical research is not as formidable as it appears, but it requires a special type of reasoning. Statistical reasoning involves a tight, detailed, and codified logic that can be especially difficult for people who would rather deal in broad strokes and big ideas than with the making of fine distinctions about extremely well focused concepts.

Some people view statistics with a sense of moral indignation at the fact that statistics reduces things of human importance to numbers, and they relate statistics to the power that statistics could give to a "big brother" type of government or to a scorn of heartless bureaucrats. In reality, of course, statistical research reduces an object of study no more than a camera reduces the object of a photograph. Statistical reasoning simply represents a highly patterned and highly public way of looking at the world, and because its details can be readily scrutinized and evaluated, it is often preferred by funding agencies and program evaluators over more subjective and less public ways of reasoning. Like all research methods, it can be used for good or bad purposes.

Statistics are a part of the everyday life of adult educators. We use them to report attendance, to evaluate our programs, and to learn about the demographic trends in the broader society that affect our work. It is in everyone's best interest that working educators learn how to be critical consumers of quantitative research. Even the best quantitative research on adult education is ultimately meaningless unless teachers and administrators put the findings to work.

Editorial Board

Issue A: February 1997

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Themes of Upcoming Issues

May 1997:	**Reading**
September 1997:	**Multi-Level Classrooms**
December 1997:	**Thematic / Content-Based Instruction**
February 1998:	**Learner Motivation**

Editorial Board Members Needed

Responsibilities

- **Review all manuscripts for interest, clarity, accuracy, balance, relevance to the target audience--this entails a considerable time commitment**
- **Participate in at least two two-hour-long conference calls**
- **Suggest titles, ideas for illustrations, resources for departments, themes, story ideas, authors for upcoming issues**
- **Evaluate your board experience and suggest ways it can be improved**

Qualifications

- Current classroom experience in ABE/GED/ESOL, if possible
- Expertise in one of the issue themes, including, if possible, familiarity with the literature
- Experience writing for publication preferred but not required
- Experience working with others on their writing preferred but not required

Stipend

Each board member will receive a stipend to work on two issues, and a complimentary one-year subscription to *Focus on Basics*.

Application Process

To apply, send a letter that highlights your area of expertise and a resume or brief description of your relevant experience. These can be e-mailed or mailed to Barbara Garner, World Education, 44 Farnsworth Street, Boston, MA 02210-1211
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An Odyssey for an Answer

By reading, attending conferences, and testing out what she found, Grace Temple found answers to the question: Why can't he learn?

by Grace Temple

To do research, you don't have to be someone with a doctorate. Anyone — a teacher, aide, tutor, or learner — who sees a need or an unsolved problem can, by questioning, reading, and following up on what is learned, use research to find an answer. I was launched on a journey of research that led me into teaching and training about 30 years ago, when my boy's teacher informed me that my son had a learning problem. His confusion, lack of comprehension, and eventual disinterest in school concerned me. Thus began my efforts to discover why, with an otherwise intelligent individual, the materials, the instruction, and the concepts didn't seem to reach the brain.

Looking for the answer to this question led me into the kinds of learning styles, hemispherically, and multiple intelligences, ever searching for something that would enable those who learn differently to achieve. In the beginning, I questioned individuals in the field of education, interviewing first local teachers, then county and state professionals. If I couldn't reach them in person, I called them on the phone. I persisted with people until they gave me a name, an article, or a book title. If the book, article, or workshop addressed "how the does the brain learn" I read it or attended it. I became familiar with the names Peter Kline, Howard Gardner, Bob Samples, J. W. Keefe, Klauer, and many more. From attending workshops and conference sessions featuring those such as P. Lustig of Birmingham, MI, Don McCage of Flint, MI, Ed Castor from General Motors — United Auto Workers, and Wally "Famous" Amos, all of whom had experienced learning difficulties first hand, I learned the most.

As I searched, I was constantly on the alert for something that made sense, that addressed the problem of why otherwise intelligent individuals were unable to interpret or learn via traditional instruction. Eventually the focus of my search narrowed. I started trying methods, strategies, and activities. If it seemed practical, multi-dimensional, and flexible, I tried it. I used my students' reactions as a guide, incorporating that which appeared to help and interest, abandoning that which made them uncooperative or unresponsive.

As a teacher of reading improvement and a pre-GED class in an adult night school, I applied what had been theory to me and witnessed success. By using several assessment inventories I found or adapted, I helped my ABE students identify their learning styles, their right or left brain preferences, and which of their intelligences they used primarily. They became aware that they weren't dumb or slow; instead, they learn material differently from the way it is often presented in school. When I explained how educational thought has progressed, and that we know much more about learning than when they were in their early grades, they became interested in learning about how we take in, process, and make use of information. Then, I threw the responsibility back on them, urging them to understand how they learn best and encouraging them to make sure I met their learning needs. For my part, regardless of the night's subject, math or social studies or science, I always made a multi-dimensional presentation. I used flow charts, colors, discussion, group work, team work, and anything else I found that would help get the subject across. It was ultimately up to the students to look for what spoke to them and use it.

While working with these adults, I found many who were struggling as beginning readers. I joined with other community leaders to establish a literacy program, LVA-Samba Literacy Council, which offers tutoring to adults reading at the beginning level. As director and trainer of volunteers, I made it a point to research different programs to see which incorporated what I thought, based on the research I had done, would best serve our students. After participating in trainings by Laubach Literacy International, Bronx Educational System, Literacy Volunteers of America (LVA), and Michigan Method LitStart, and becoming certified as a trainer of tutors by LVA and LitStart, I designed a tutor training that includes strategies and methods that embrace students' different learning styles. This training includes an overview of how adults take in, process, and assimilate information. Our curriculum includes a unit that encourages tutors to share this information with their students and to draw on students' background knowledge, experience, needs, and interests. I encourage tutors to use a variety of activities during tutoring sessions and to tailor lessons to focus on their students' learning styles. In this way, our students' learning barriers are overcome.

Always on the Lookout

Today I am still reading, always on the lookout for anything new or useful. For example, while reading a newsletter, I saw that a literacy program in California had received a grant to create a new training model that emphasized an integrative approach. I called for more information. A few more calls and we were included as a pilot site, able to offer this training to all interested tutors and ABE teachers in the county.

As for my son, by using a variety of techniques, he was able to graduate from high school, and a naval school, and become an air traffic controller. What a loss of talent if research hadn't been available to me. Any teacher who sees a student failing to grasp what is being taught can easily become a practitioner-researcher by going to the literature, changing strategies, altering methods, or just plain trying something different, then observing what, if any, changes occur.

Research with Words: Qualitative Inquiry

by Glynda Hull

In the last two decades, educational research has undergone a slow sea change as qualitative studies have gradually come into their own. Once rare, once reviled as unscientific or merely journalistic or too personal, or biased or just "soft," such educational research now abounds in books, journals, and conferences, garnering at last considerable interest, respect, and even funding. The great strength of qualitative research is its "naturalism," its intimacy with real people in real situations, its concern for understanding human beings as they act in the course of their daily lives.

Qualitative researchers want to enter the worlds of the people they study, get to know them, and ultimately represent and interpret those worlds. It follows that qualitative writing tends to be rich with quotation, description, and narration, as researchers attempt to capture conversations, experiences, perspectives, voices, and meanings. This is research, it could be said, with words instead of numbers.

Although such research is wonderfully various, hailing from disparate disciplines and methodological traditions, qualitative researchers and the projects they undertake have some things in common. Qualitative researchers typically examine a small number of sites, situations, or people, and they usually discover an extended period of time — weeks, months, or years. They gather their data by using themselves as instruments — observing, participating, interviewing. Although they formulate research questions to guide their inquiry, they expect their questions to change or sharpen as the study progresses. Qualitative researchers are interested in understanding the world from participants' frames of reference. Indeed, they want to take context fully into account, and to consider as well their own biases in their research. They assume reality to be multiple and shifting, and they see all inquiry as value laden and ideological.

Examples

Here is a voice from a qualitative study carried out in a village in Bangladesh. This is Runa, for whom learning to sign her name had exceptional personal and pragmatic significance: "It took me almost a month to learn to write my name," she told the researcher, also a woman and a native of Bangladesh. "Everyday I would practice and learn a little. Sometimes my husband would show me. I couldn't do it at first. He even slapped me one time because I couldn't do it. After that I was determined that I wouldn't be hit again just because I couldn't sign my name. I must learn and I have."

Runa, like other impoverished women in her village, had been extended credit with no collateral required by the Grameen Bank. The women used their loans to improve their families' economic lots — to purchase a milk cow, for example, or to open a small shop. These modest economic opportunities had important educational and personal by-products, the researcher learned, as she spent almost a year in the field — observing bank meetings and training sessions, interacting with the women in their homes, and taking part in the community's religious festivals and wedding celebrations. Although the Grameen Bank did not offer literacy classes per se or claim universal literacy as one of its objectives, the researcher discovered that being a member of the bank entailed literacy-related activities. In fact, after being initiated into bank-related activities, even those women who, like Runa, were classified as illiterate, began to engage in different kinds of literacy practices and to display a certain facility with print.

Participation in the loan program changed individual lives, the researcher discovered, providing women with a source of income and transforming their ways of thinking about themselves and their relationships with others, even as the patriarchal power structures of the society itself remained intact. In this male-dominated culture, women's activities were limited, yet the researcher demonstrated how women who participated in banking activities nonetheless gained more of a voice and sense of value. Remember Ruma.[1]

This project on the Grameen Bank is an example of qualitative research in the tradition of ethnography; it relies substantially on the data collection method called "participant observation," and it takes as its broad goal the portraiture of the culture of a social group. I find this kind of research especially compelling because it struggles hard to be comprehensive, to provide a detailed and sufficiently complex accounting of individuals, activities, and relationships—to weave a tapestry, so to speak. But there are other forms of qualitative research besides full-scale ethnographies that can shed helpful light on adult learning. Perhaps most common is the case study, a detailed examination of a particular event or a single person or one setting.

One type of case study is historical and traces an organization's development over time. Debby D'Amico and Emily Schnee recently constructed such a case study about a federally funded workplace literacy demonstration project in New York City. They focused on the way the project evolved over four years, paying special attention to the relationships among instruction, employment, English language fluency, and immigration status.[2]

Other case studies focus on what can be learned from observations of and participation in organizations; the researcher's focus might be on a particular place in an organization like a school or on particular people or particular activities. A number of years ago, Hannah Arlene Fingeret evaluated North Carolina's Adult Basic Education Program by constructing this kind of case study: interviewing stakeholders and observing at program sites (Final Report of the North Carolina Statewide ABE Evaluation Project, 1985). Judy Kalman's research at the Plaza de Santo Domingo in Mexico City provides another example of an observational case study. Kalman was interested in studying reading and writing for everyday purposes and therefore chose to observe the public scribes who set up their small desks and ancient typewriters at the Plaza and are hired by clients to read and write a large variety of documents.[3] A third example is the comparative case study of two workplaces in the Silicon Valley of northern California that I recently carried out. Using a variety of ethnographic methods, my colleagues and I hoped to identify the literacy related practices of changing workplaces and to document how a largely immigrant workforce coped with and experienced them.[4]

This is research, it could be said, with words instead of numbers.

Uses

Most generally speaking, the purpose of qualitative research is to understand human experience to reveal both the processes by which people construct meaning about their worlds and to report what those meanings are. But what particular kinds of information can qualitative studies offer literacy specialists and adult educators?

Such research can reveal how people experience educational activities like literacy classes or work related education programs — what they value, what they reject, what they learn, how they change. Thereby the studies can tell us something about how and why such programs succeed and fail. This kind of research can also document and characterize the diversity and complexity of literacy activities as they occur in school, work, and daily life, as well as the incentives and disincentives that people perceive for developing and exercising literacy abilities. Thereby we can more fully appreciate the nature of the literacy practices we are attempting to teach. And such studies can introduce us to situations from the points of view of varied participants, bringing to the fore individual perspectives, histories, and proclivities, as well as structures of power that influence what people learn and are able to do. Thereby we can place literacy learning properly in broader historical, sociocultural, and political milieus, learning how learning is influenced by forces outside the classroom.

One practical application of qualitative research in adult education is in the evaluation of programs and the assessment of learner progress. While standardized tests like the TABE can be a quick and cost-effective source of quantitative data related to reading achievement, qualitative research can provide information about actual events in classrooms and communities, data which allow alternate, more comprehensive, arguably more accurate accounts of and explanations for student performance. Qualitative and quantitative research are indeed based on different assumptions, and of late there has been a growing disenchantment with the exclusive reliance on quantitative methods in educational research, particularly in testing. This is not to say, however, that qualitative and quantitative methods are pure oil and water, never mixing. Some researchers design studies which employ both but for different purposes. It is possible, for example, to use ethnographic methods to understand why two variables are statistically related in a correlational study — say, socio-economic status and reading ability; sometimes a large scale survey provides the backdrop for a case study; and open-ended interviews are a

typical part of the design process for formal questionnaires.

It's also important to note what qualitative research isn't good for and won't do. Qualitative data are obviously not amenable to quantification and thus won't satisfy those who want findings based on numerical data and reports of statistical significance. Nor are findings from qualitative research generalizable from one setting to another without comparable research elsewhere. There are also weighty practical disadvantages to qualitative inquiry. It is extremely labor intensive in terms of data collection, and the analysis of a wealth of qualitative data can be a daunting and poorly lit endeavor, since there is much disagreement over analytic methods.

Ethics

All research is supposed to protect the people who are studied—to inform them of its risks, to shield their identities, to uphold any contracts or agreements about the nature and conduct of the study. This of course holds for qualitative research, too, but in some ways the stakes here are higher and the course more arduous. Particularly in the 60's, certain traditions of qualitative research took as their focus the experiences of oppressed peoples and as their purpose giving voice to the downtrodden or neglected. While such a perspective certainly doesn't characterize all contemporary qualitative research on literacy and adult education, it is worth noting that adults who are learning to read or to improve their literacy skills may be more vulnerable in some ways than comparable others. This vulnerability may result, not just from illiteracy, but from being poor or a recent immigrant or female or a frontline worker, and it requires of researchers that they take special care.

In quantitative studies, researchers typically have little contact with their subjects; the nature of the research might call simply for the administration of a questionnaire or the limited contact needed to direct participation in an experiment. But carrying out qualitative research often means getting to know people, gaining their trust, sometimes even forming long-term friendships. And for many qualitative researchers this process is filled with ethical land mines. To take a common dilemma, a researcher's reason for forming a relationship with a person in a study is to gain information and understanding, and that goal is always at the back of the researcher's mind. But participants in a qualitative study may develop very different goals of their own: to talk to someone who has such an unparalleled interest in listening, to gain an advocate or an assistant, to grow in status by association with the project. Different views about the nature of the study and the nature of the relationship between researcher and participant may result in feelings of duplicity and betrayal.

. . . this process is filled with ethical landmines.

However, one of the strengths of qualitative research today, and one of its greatest challenges, is the attempt to rethink the relationships that researchers build with the participants in their studies. Recent feminist researchers, in particular, have emphasized the need for non-exploitive relationships and for cooperation and collaboration. Similarly, "action" research invites those once considered "subjects" to become partners in the inquiry process, actors who contribute to setting goals, carrying out the study, and interpreting and representing its findings. Indeed, the whole question of representation is up for grabs, as qualitative researchers from a variety of traditions attempt to question the once taken for granted process of writing about others. Here is a stark illustration of such dilemmas. In an essay about her oral history research with Brazilian women, Daphne Patai describes the afternoon she spent in the home of a very poor woman in Recife, who insisted that the researcher who had come to interview her eat what was apparently the last remaining food in her house, a piece of cake. Patai asks in the title of her essay, "Who should eat the last piece of cake?" and uses this encounter to rethink the obligations of researchers and their relationships with and responsibilities toward the people who figure in their qualitative research.[5]

Judging the Stories

What should readers look for in good qualitative research?

- **Worthy Goals:** Good qualitative research in education needs to serve a purpose beyond the researcher's interest in a particular phenomenon. It needs to answer a useful question or go at least part of the way toward solving or shedding light upon a significant educational problem.
- **Vivid Description Plus Convincing Analysis:** When I read qualitative research, I expect engrossing narratives and vivid descriptions. I want to come to know the people being written about and to be able to picture their classrooms and communities. But combined with description should be convincing analysis, in which the author reveals the perspectives that inform the research and illustrate how he or she marched from particular evidence to particular conclusions.
- **Sufficient Data:** Although length and intensity of time in the field are certainly not the sole determinants of good qualitative research, I am uneasy when researchers call their research "qualitative" or "ethnographic" and then reveal that they have spent only a few days or a week or two collecting data. I want to know that the researcher has taken the time needed to gain entry to a classroom or program or workplace; has taken the time needed to understand it in its complexity and totality; and has taken the time needed to collect sufficient data to answer the

questions that were posed. All this will make findings more credible.

- **Sufficient Accounts of Data and Analysis:** Typically, qualitative researchers face formidable space problems in writing about their projects, which don't lend themselves to pithy summaries or representation in tables or charts, and are hampered by the page restrictions imposed in journals.

Qualitative research is best described discursively and at length, so that readers can get a sense of the types of data that were collected and the ways in which those data were analyzed. Ideally, enough data should be included in a report so that a reader can examine them and compare his or her own conclusions with those of the author.

- **Acknowledging Dilemmas:** Most qualitative researchers experience various dilemmas in the field whether with gaining entry to a site or establishing a relationship with participants or negotiating the extent of the study or even with some of many possible ethical problems. It is always helpful and honorable for researchers to come clean about such issues, in either the body of their paper or an appendix, to represent their research honestly and to provide helpful road maps for future field workers.
- **Representing Others:** Since at its heart qualitative research is an up-close look at other lives, I am always interested in how well those other lives are represented on the page. I look for representations that are grounded, being built from actual data, that are always respectful, yet not romanticized, that reveal complex human beings rather than cartoonish stick figures, and that situate people's choices, values, and activities in a larger socio – cultural, political, and historical context.

Conclusion

Many adult educators have had students who are reminiscent of Rumi, who have struggled to beat the odds and who can say with pride, "I must learn and I have." Surely the joy of teaching adults comes from moments like this, when despite the terrible complexities and challenges of adulthood, there is transcendence. What I most admire about excellent qualitative research on adult learning is its enormous potential to capture, represent, and explain such moments, and its equal potential to bring home to us what is still awry. In this way qualitative research can inspire us to action — to teach better, to imagine more helpful research, to do what we can to make our institutions more responsive. As of yet, qualitative research on adult learning is relatively rare, despite the fact that qualitative inquiry in general is on the rise. My best hope for this article, then, is that it will encourage adult educators to call for, participate in, learn from, and carry out qualitative inquiry or research with words. ✍

Endnotes

1 Sharmim Khan, *Banking on Women: Learning, Literacy, and Human Development in the Grameen Bank, Bangladesh*. Unpublished Doctoral Dissertation. (University of California, Berkeley, 1994).

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5 Daphne Patai, "Who Should Eat the Last Piece of Cake?" *The International Journal of Oral History*, Vol. 8, No. 1, 1987, pp. 5-27. •

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Finding Out for Myself

Dissatisfied with what she found in the literature, Eileen Barry decided to do research within her own classroom

by Eileen Barry

Antonio brought his daughter to class today. He said he wanted her to see what he did at school and thought it would be fun to learn together. We were reading newspaper articles about health care and I wondered what she got out of the discussions . . . Lucilia didn't have a babysitter tonight so she brought her two children. They sat at a separate table and drew pictures while the rest of the group worked. . . Connie's son came to class with her tonight. As we worked on revising some writing, he laughed and told her she spelled some words wrong. I could see that this bothered her but wasn't sure how to respond. —*Excerpts from my teacher journal*

Before teaching in adult literacy classes like the one documented in my journal, I worked in a Head Start program. An important part of my job was working with the children's parents. Hearing from them about their negative experiences in school, their desires to improve their own literacy skills, and their frustrating attempts at becoming involved in their children's schooling, I began to work with them in impromptu literacy work. Eventually, I left Head Start to work in adult literacy and have, over the years, taught ESOL, ABE, and GED classes. Many students brought their children to these classrooms. When I read over my teacher journal, I realized that the distinction I was making between adult and child literacy was unfounded. Whenever anyone in a family learns, it has a direct impact on the entire family. Children bring home new books and ask their parents to read them; parents miss classes because they lack child care; dynamics shift in families as members expose themselves to new ideas and experiences.

Questions

I also realized that for the Head Start kids and ABE parents, the literacy instruction that occurred in my classes did not fully build on the literacy practices in my students' homes and their communities. I was approaching the families from a deficit viewpoint as I attempted to teach them academic skills that I thought were important without first considering the many ways and the various languages in which they already used literacy. In addition to the social and political implications of this procedure, this practice was educationally unsound, for I was not drawing on existing knowledge as a foundation for introducing new ideas and skills. With these realizations came questions. How could I support adults and children as they came together to develop literacy skills further in a class setting which was meaningful to their lives? How could I structure a class which encouraged the use of home languages while promoting increased fluency in English?

These questions bothered me so much that I decided to return to school to discuss my concerns and learn from the experiences of colleagues who shared my interest. During this time, I reviewed the literature on family and adult literacy. I found that much of it approaches the topic of family literacy from one of two perspectives, one which focuses on transmitting skills to parents and children to foster success in school (Nickse, 1988) and another which advocates for a "social-contextual approach" (Auerbach, 1989) that builds on the literacy practices of families while developing curriculum based on these practices. In this approach, the cultural, social, and political realities of the families are not viewed as hindrances to literacy development but are the foundation upon which future learning is based.

I began to identify and to better articulate my real concerns as a teacher. I realized that I am interested in family education, which I define as the practice of generations sharing knowledge as they learn from and with each other. Because most of my students are immigrants from Portugal,

I felt dissatisfied with the majority of the existing literature's emphasis on teaching families to use English and wanted to broaden the scope of work to support the use of home languages as well as English. Also, because the Portuguese culture, and so many communities, define family in much broader terms than that of the parent-child relationship, I felt that including multiple members of one family, however that family defines itself, would be important. Since the literature did not address my specific concerns, I decided to conduct my own research.

My Research

In my research, I am exploring how literacy programs can provide a more holistic and relevant atmosphere for learning by structuring a class specifically designed for inter-generational literacy. The class has

some time scheduled for adults to work separately from the children and time when the generations come together. The initial stages of my research are guided by two broad questions: *What happens in an intergenerational setting in which adults and children come together to learn from and with each other?* and *What are the roles of literacy in family education?* My central focus is a concern with how parents and children share knowledge and learn from each other within the specific setting of the project. I will also consider how two languages are used in the classroom and the course of literacy development in this group.

To prepare for the class, I conducted informal surveys of adult learners in five classes, speaking to about 50 students in all. Later, I held a planning session for interested adults and their children to determine the extent of their interest in an intergenerational class, how they thought it should be structured, and what topics we should study. I learned that the adults were interested in learning more about their children's schools so that they could advocate for their families' needs. They also hoped to use our time together to improve their own English skills, and to teach Portuguese and something about Portuguese culture to their children. Although the children were less vocal during the meeting, they offered to help their parents learn English and said they would welcome opportunities to use computers.

Grupo Familiar Portugues Americano, our group of eight adults from Portugal, 11 children born in Portugal and the U.S., a bilingual assistant, and I, meets weekly. Our ages range from seven to 48. Together, we are struggling to find productive ways to support intergenerational learning. We use English and Portuguese as the adults work to achieve their goal of improved English communication and the children and I study oral and written Portuguese. Most recently, we have tackled the issue of school violence by identifying major concerns and strengths in the schools, role-playing solutions to some of the problems, interviewing adults about school experiences in Portugal, and finally brainstorming some solutions for American schools and writing letters with our suggestions to the mayor and superintendent of schools. Since most of the material that we read was in English, we translated important words and phrases into Portuguese. Most conversations occurred in Portuguese with English translations. Both adults and children expressed their belief in the importance of addressing this topic for, as a 14-year-old girl observed, "There are a wicked lot of fights and drugs all around us" and as an adult in the group observed, "If we don't do something, nothing is going to change."

I will have to continue making my agenda clear.

Issues

As the facilitator of the group, I am increasingly aware of the difficulty of identifying and building on the literacy practices of the families as we meet in a class setting that is removed from their immediate needs. I intend to conduct additional open-ended interviews to learn more about the literacy practices they use in their homes and to determine which family member does what and in which languages. I am gathering data by taping and transcribing sessions, collecting the group's writing, recording reflections in a teacher journal, and interviewing participants. As my work progresses, I will have to remain aware of my role as a researcher and teacher in a project that is intended to be as participatory as possible and driven by the goals and interests of the group. This is tricky, since the class developed out of a question that I asked and was not initiated in the community. As we meet, I need to be sensitive to the authority I hold because of my role as the organizer and facilitator of the group. I will have to continue making my agenda clear and encourage the other participants to voice their expectations as we attempt to identify what each of us hopes to gain from the experience. Our goals will most likely change over time and will be influenced by our interactions in the group. In the class, I encourage all members to direct the content and structure of our time together by identifying topics for discussion and by suggesting methods of studying together. At first, I listened for recurring themes that seemed important to the group, such as violence in schools. Now, students bring in materials to study and raise issues for discussion, such as the new policies regarding immigrants' rights and benefits in the U.S. Through discussion, we routinely evaluate what the group has accomplished and the future directions we could take.

In terms of research, I will share some data and transcripts with the group for their comments. As I further analyze data and write about our experiences together, I intend to share my observations with the group to gain their perspective and to include their ideas in my reporting. I will have to consider the language of the report and how to represent our individual and collective ideas as we explore one way to promote intergenerational education within and among families. ☙

More on Eileen's class and research in the September issue of ***Focus on Basics.***

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On *Reading* Teacher Research

by Susan L. Lytle

I am a collector. For more than ten years I have had my eyes open for anything even vaguely related to the subject of teacher research. I've tracked the major journals, ordered monographs, handbooks, and edited volumes, attended sessions at teacher research conferences and at conferences where teacher researchers appeared on the program, sought out self-published volumes, joined SIGs, surfed the Net, ordered newsletters, and been sent many publications and works-in-progress by friends and colleagues across the country. I've also been a participant, writing and thinking a lot about teacher research with teachers and other practitioners as well as teacher educators and have been involved in a range of inquiry communities over time. Of late I have been researching my own practice, sometimes in collaboration with co-teachers and teaching assistants in classes I offer as a faculty member in a graduate school of education.

The sheer quantity of what is going on in K-12, adult education, colleges, and universities that involves teacher research is truly amazing: journals, articles, conferences, professional development programs, institutes, workshops, courses, informal study groups, on-line chat groups and bulletin boards, dissertations, state initiatives, and networks — local, regional, state-wide, and national — are springing up all over the place. They attest to a palpable excitement and widespread interest and to the likelihood that what is occurring is more the status of a movement than a passing fad or something random or serendipitous.

To say that this dynamic field lacks a clearly defined shape, however, would be an understatement. Various proponents and participants associate teacher research with an array of agendas, including teacher professionalism, educational reform, diversity and multicultural education, participatory education, constructivist pedagogy, and other new approaches to teaching and learning, the standards movement, alternative assessment, university-school collaborations, program and professional development, as well as critical, feminist, participatory, post-structural approaches to pedagogy, curriculum, and research, and others. At the same time as this movement can be described as validating, provocative, useful, and enlightening, it is also messy, noisy, in struggle, and sometimes contentious.

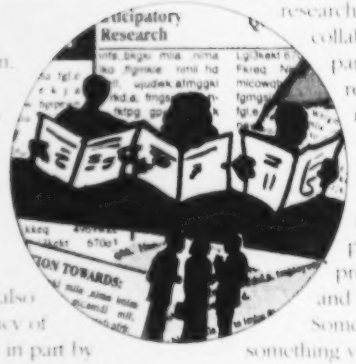
So making sense of the work of various individuals and groups, sorting out the language and the different traditions and assumptions, becoming sophisticated and critical readers of teacher research requires an inquiry itself — asking questions, interrogating assumptions, understanding contexts and purposes, as well as juxtaposing and bringing the work into dialogue with one's own experiences as a teacher and learner. What I will try to do here is to provide a bird's eye view of the field, a conceptual map for reading and interpreting the "texts" of teacher research.

The Who

Teacher research, as I see it, is a living, breathing, evolving phenomena, not a method or technique or even necessarily a genre or emerging paradigm. So widespread and various, with so many varieties, histories, roots and relatives, it is not something that anyone simply "defines." Probably the only thing the many iterations have in common is the *who*: the fact that the researcher is a teacher or other practitioner who is doing research in her own setting, in relation to her own practice, and sometimes with her own students. The researcher is an insider to the setting, someone who knows the place and the players from close connections over time, who is involved in the situation, and who cares about the work at hand.

It is a commonplace that most research on schools and programs and classrooms has been done by outsiders.

But the call for insider research is hardly new, traceable at least as far back as the writing of John Dewey early in the century. Believing in the importance of teacher reflection and in the significance of observation for shaping teachers' theories about their practice, Dewey urged educators to be both consumers and producers of knowledge, at once teachers and students of classroom life. Lawrence Stenhouse, John Elliott, Steven Corey, Patricia Carini, James Britton, Donald Schon, and Dixie Goswami, to name a few, have made similar arguments from their different perspectives and locations. In addition, parallel educational movements, such as those led by African American scholars and other scholars of color, feminists, and many grassroots activists and reformers have also argued for the primacy of insider perspectives, in part by pointing out the particular need for teachers from these communities to explore their own questions and mine their own knowledge to bring about meaningful change.



When teachers systematically and intentionally inquire into their practice, often in concert with colleagues, they value and draw on their own ways of seeing and knowing. Instead of being the researched, the objects of study, the recipients and implementors of knowledge produced by others, they become the researchers and generators of knowledge by making visible to themselves their emic or insider perspectives. Teachers' perspectives are nuanced, up close and personal, on site, day after day; they can watch things build and twist, unfold and come together again, over significant periods of time and in the intensely familiar context of their daily work. Attending to the immediacy and complexity of the scene, keeping a steady focus on learners and learning, and layering teacher inquiry with student inquiry are often the distinguishing if not distinctive features of research that places teacher or other practitioners at the center of the undertaking.

The What

Other than who does it, everything else about teacher research seems to vary endlessly: what it's called, where it happens, why it happens, and what it looks like. Most obvious is the steady proliferation of labels used to describe this type of work, including teacher research, teacher inquiry, practitioner research, practitioner inquiry, qualitative practitioner research, action research, critical action research, collaborative action research, participatory action research, emancipatory research, practice-as-inquiry, reflective practice, educative research, classroom inquiry, researcher-in-practice, inquiry-based professional development, and more.

Sometimes these labels signal something very deliberate; in other cases, they carry little intentionality at all. Most often, the term teacher *research* is used to describe investigations of practice in the tradition of qualitative, interpretative, and ethnographic methods and methodologies. Others deliberately substitute the term *inquiry* for research. For some, choosing the word inquiry is a self-conscious attempt to distinguish or disassociate this work from academic or university-based research they regard as irrelevant, inaccessible, or impositional. For others, calling the work inquiry is an effort to make a more visible and explicit connection between the stance of the teacher who is doing the inquiry and the inquiry stance of the learners involved. Terms such as *collaborative*, *critical*, *participatory*, and *practitioner*, that are used to modify inquiry or research, carry their own theoretical orientations and methodological implications. To read teacher research that positions itself within one of these traditions, it is useful to figure out what it may mean to the writer as well as what it's connected to in the research literature.

The Where

Some teachers do research alone, but most teacher research occurs in groups or communities. Teacher research thus varies considerably by its locale or context, or more specifically, by the particular social and organizational structures that support the work. Some groups are intentional sites for research — set up as part of a professional development program or by teachers in content-based networks. Other groups — such as study circles, committees, or curriculum projects — may not initially set out to conduct inquiry but over time evolve into inquiry communities. Teacher research also occurs in university settings, in teacher education programs as well as research courses offered as part of continuing education. Teacher research has also become a part of many district, city, state, and even national reform initiatives, often in connection with innovations related to standards, constructivist teaching, or performance-based assessment.

The Philadelphia Teachers Learning Cooperative is a longstanding and independent teacher organization which reflects a particular intellectual tradition and specific approach to conducting inquiry into daily practice. This group draws on the work of Pat Carini and the Prospect Center and School in Bennington, Vermont, where a philosophy of learning, for both children and adults, has been developing over time. Reflective descriptive methods called the documentary processes, which are thoughtfully conceived approaches to structured oral inquiry, are used to promote understanding of learning and both inform and are informed by teaching practices. This group has existed for more than 20 years, meeting every Thursday afternoon at a teacher's house, and is and has always been initiated and organized by teachers for teachers.

The Breadloaf Rural Teacher Network, coordinated by Dixie Goswami, a primary voice in the teacher research movement, is a structure for teacher research grown from the summer Breadloaf School of English at Middlebury College in Vermont with three satellite campuses

in rural Mississippi, Massachusetts, and South Africa. Often returning for four to five summers, teachers do their research during the school year. Linked across sites by an electronic network called Breadnet, many Breadloaf teacher researchers focus on teacher- and student-generated collaborative and community-based projects that combine action research, service, and advocacy.

The Adult Literacy Practitioner Inquiry Project (ALPIP) functions as an intellectual community for practitioners and university-based faculty and graduate students as writers, researchers, and reformers in the areas of literacy, language and culture. Three different contexts — a national research center, a teacher to teacher collaborative, and a field university partnership — have informed and shaped ALPIP's approach to teacher research over time. The project offers year-long seminars and other inquiry based activities for teachers, tutors, and administrators from a wide range of urban literacy programs in Philadelphia, including community college developmental reading and writing programs. ALPIP has a spinoff at the state level and has also joined with others to start a national "network of networks" to foster collaboration among a diverse set of organizations exploring relationships of inquiry and practice.

Any structure teachers find or build to support their work has its own distinctive contours and conventions, assumptions, purposes, and practices. A teacher collaborative that begins in a teacher center and remains organized entirely by teachers, for example, conducts inquiry differently from a broad-based network affiliated with a university graduate program or a school-university partnership. The written texts of each teacher community reflect the local culture from which they emerge. In reading teacher research, it seems to me necessary to notice where the work takes place and what it's connected to — even when the authors do not make an explicit link between the particular study and the ethos of the community in which they are participating.

Thinking and posing questions about the setting or context becomes an important way to better understand the nature of the work, given that the field and the respective locales that support teacher research are so diverse.

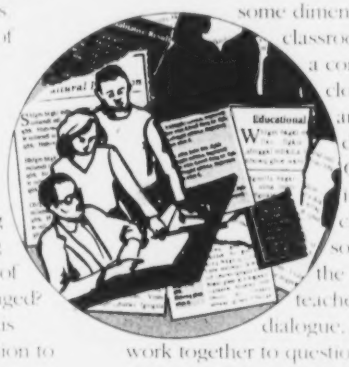
The Why

On some level, all teacher research shares a common purpose — to improve practice and thus students' learning and life chances. This commitment to improving educational practice signals, more or less explicitly, a commitment to change something. *Change* as a concept has been widely theorized and debated in the educational literature as well as elsewhere. In teacher research, a commitment to change is represented both as a unifying force that brings people together across borders and boundaries as well as something of a catch all category which does not take into account conflicting beliefs and agendas. Questions that drive these conversations include: what counts as change? to whom? when? where? what is the change for? and how should it occur? Likewise, these questions and issues are inevitably implicated in understanding the purpose of teacher research in its various iterations.

Figuring out the purpose of teacher research — of what it means to improve practice — involves a hard look at how change is envisioned in its frameworks, practices, and products or outcomes: what are teachers' purposes in doing research? what are they hoping will happen as a consequence of their efforts? what is to be changed? In the teacher research field, it is particularly useful to pay attention to who or what is positioned as the primary "target of change:" the individual teacher or practitioner, the institution or institutions in which teachers work, or broader societal structures. My intention is not to create a framework for the purpose of sorting but rather to pay attention to where the energy in the research is going in order to develop appropriate lenses for looking at and understanding the work. It is also to suggest that these categories are overlapping and that having a specific focus on one layer does not preclude the possibility of having wider impact.

Individual: Much teacher research focuses on individual teachers and their classroom practice as the primary site for change. In this view, at its broadest level, the purpose for teachers doing research is to improve their teaching. For example, many teacher researchers observe and document learners' lives in and sometimes outside of classrooms to understand how they and their students construct understandings of educational processes. This self-reflection and analysis can bring about a more complex or textured view of daily practice, including its tensions, ambiguities, and contradictions. It can reveal how teachers and their students negotiate what counts as knowledge in the classroom, who can have it, and how their own interpretations of classroom life are shaped.

A purpose of inquiry for individual teachers is to understand their own theoretical frameworks and perhaps to change their own perspectives and actions. The purpose is not to do research, but to change themselves so that they can be better teachers or alter some dimension of classroom practice as a consequence of close observation and documentation. Often this individual change is sought through the workings of a teacher group. In dialogue, teachers may work together to question common practice, to examine their underlying assumptions, to deliberate about what constitutes so-called "expert" knowledge, to interrogate educational labels or categories, and to unpack the values and interests that are served through current practices of education. Working from their experiences, teachers try to change by refusing to take for granted what is usually taken for granted about teaching and learning. In doing so, teachers often



change how they see their roles, frequently assuming positions of leadership in their programs, departments, and institutions.

Institutional: Some teacher research takes the institution as its primary site for change. From this perspective, the vision of change that drives the activity is directly related to the reform or restructuring of schools, programs, or district practices and policies. The purpose for research may be to alter administrative, curricular, or programmatic structures that fail to provide or subtly constrain learners' access to current and future educational opportunities. The research sets out to make these structures more visible by questioning specific practices, such as those related to placement, assessment, counseling, or culturally appropriate curriculum and pedagogy. In addition, teachers may do research to change the cultures of teaching or learning in the program or school, to make their work more integrated or interdependent, or to document the struggles involved in creating a truly collaborative community where all teachers learn. Making public the contexts in which practitioners work and the forces that support and constrain collegiality represent a focus on institutional change.

Although never the sole or even primary focus of the researching activity, teachers' research often intentionally provokes questions about the ways research is conducted, valued, and promoted, by whom and for whom, and raises questions about who sets the agenda for educational inquiry and whose interests are served. Like the ongoing debates in the broader research field which concern issues of ethics, representation, and researcher-researched relationships, in raising these questions, teacher research inevitably disrupts the status quo, and provides tangible evidence for the viability of alternative approaches, discourses, methods, and genres for conducting inquiry.

Societal: Some teacher research makes the goal of addressing social justice its primary focus. Research is thus conducted to create and sustain a political and ethical discourse about the educational enterprise. With this purpose, researchers set out to reveal the ideologies and historical antecedents of the everyday and to understand what situations contributed to the ways things are. Teacher research in this vein is often collaborative and participatory, deeply connected to broad activist and advocacy efforts, local or otherwise, and often linked closely and explicitly to efforts for creating more democratic social systems, of which education is only one part.

On some level, all teacher research shares a common purpose — to improve practice and thus, students' learning and life chances.

Teacher research that takes social change as its primary focus often challenges large systems that perpetuate discrimination related to gender, race, and class, arguing for improved access as well as greater equity. Often the purposes for research are tied to correcting public or institutional documents and the ways they are used as well as for inventing written materials that more accurately and appropriately represent people's real questions, issues, and concerns. Sometimes the research is designed to analyze and make public the assumptions informing large movements such as workforce and family literacy campaigns, standards, teacher accountability, English Only legislation, and other structures or policies that contribute to the oppression and marginalization of individuals, families, and communities.

Conclusion

When asked for a definition of modernism, Milan Kundera is reputed to have responded that what is modern is what calls itself modern and is accepted as such. In a sense, whether we like it or not, that applies as well to the current field of teacher research. At this time there is little to be gained, I would argue, in consuming debates about what counts as teacher research and what does not. This is not to suggest that we need to ignore differences, nor am I arguing that we dismiss the already existing body of critique, much of which is very useful and thought-provoking. To the contrary, I am convinced that the primary agenda must be to pay significant attention to the teachers and other practitioners who are defining the field by redefining their stance to their work, making inquiry a priority, and using research to alter and improve practice, often in the face of considerable obstacles.

How we do this in part is by making the reading of teacher research a kind of inquiry itself, asking questions such as: what tradition or strand does a particular researcher or group identify with, and what does that mean? In what context is the research taking place, or in other words, how is it organized socially, intellectually, and culturally? Readers can also ask how this research is conceived or designed, given where and when it occurs. What form does it take and what methods does it employ — and what possibilities do that form and method enable and / or eliminate?

Of particular salience are questions related to intent: why is this person doing this research? or why is this community involved in the work? What are the purposes for the students, programs, and organizations involved? In what ways is this research for and with, instead of "on" and "about"? And ultimately, whose and what purposes does the research serve?

Acknowledgments

My current perspectives on teacher research have grown from my long collaboration with Marilyn Cochran-Smith and with the Philadelphia Writing Project teachers, whose reads on teacher research have deeply informed my own. I am grateful to Elizabeth Cantafio for her insights and commitment to thinking through the issues raised in and by writing this piece.

Knowing, Learning, Doing: Participatory Action Research

by Juliet Merrifield

Why do we do research? Who benefits from it? Who uses the information we gather, and what for? What is worth researching? These are the central questions which Participatory Action Research (PAR) makes us confront.

I have been a researcher all my adult life, and have worked in adult education for 20 years. I came to ask myself these questions only gradually through being challenged by my experiences. In 1977, I joined the staff of the Highlander Center, as co-director of its research program with John Gaventa. Both of us had doctoral degrees, and I had been working as a researcher in academic and commercial settings for almost ten years. Highlander then had a 45-year history of working for social and economic justice in Appalachia and South. We were faced with a dilemma: what is the role of research in a center committed to experiential education, which values experience more than formal education, action more than book knowledge? We had to try to do research in a way that empowered people, not researchers.

At first we put our skills as researchers at the service of the people Highlander worked with. We did research for people. We provided them with the information from libraries, courthouses, and government offices that they needed to fight for what they believed in. But it soon became clear that wasn't enough. Sometimes the people themselves knew more than the "official" — knowledge their own local knowledge of the land, the water, their own health, could alert them to problems long before "scientific" research caught up. Then too, we were setting up a new dependency — every time a group needed information they had to come to us. They were no more empowered, in terms of gaining their own ability to access knowledge, than before. And we could not do everything, be everywhere in the Appalachian region.

We began to take another approach: to teach people how to get information for themselves. Getting that information had to consist both of accessing "official" knowledge in libraries and government documents, and also of synthesizing and documenting their experience-based knowledge. As we embarked on this new course, learning as we went, we discovered that what we were doing had a name — participatory research — and that it was being practiced in many parts of the developing world.

For me, a community called Bumpass Cove became the defining experience in learning about another kind of research, a research dedicated to fostering people's own knowledge and empowering them with the ability to access and interpret information they need to act on their problems — a kind of "research literacy." Bumpass Cove is a small Tennessee mountain community. Its mines had long closed, and many people had moved away before a company bought some land for dumping "household garbage." Most people were happy because it provided some jobs, and they believed officials who assured them that nothing dangerous would be dumped there. Only when spring floods washed waste barrels out of the landfill and down the creek, and chemicals became mixed with the fumes, did the community come to recognize the problem, and turned out en masse to close down the landfill.

But even when the landfill was closed the problem was not solved. For at the head of the hollow were still buried an unknown mix of chemicals with the potential to harm humans and the environment. Research was a crucial tool in the residents' struggle to clean up the landfill. Four people from the community group formed a research team. Two went to Nashville

25

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to search the files of the state health department for any records relating to the Bumpass Cove Landfill. All four then brought to Highlander the two-foot-high stack of photocopies they had made. We sat around a table in the library, sorting through the documents. We made an index card for every instance of chemical dumping we could document. Then we used a chemical directory, a medical dictionary, and a regular dictionary to identify the chemicals and their potential health effects. Some of us had formal scientific training, and most of the research team had not graduated from high school — two later enrolled in their local ABE program, and one has just obtained her GED.

It was my first experience of the literacy of reading both the "word" and the "world." As we read, the group used their local knowledge to make meaning: they knew people who had experienced many of the symptoms we were now documenting; they remembered some of the unusual loads going into the Landfill; they knew barrels had fallen off a truck at a bend in the road, where nothing would now grow. Their own knowledge gave the official knowledge meaning.

Around the same time, in a mountain community in Kentucky, Yellow Creek Concerned Citizens (YCCC) was fighting another chemical pollution problem and provided support and encouragement for the Bumpass Cove group. YCCC went a step further and conducted their own health survey of residents along contaminated Yellow Creek. With guidance from health professionals at Vanderbilt University, YCCC members developed a questionnaire and went door to door to collect information. What they found may not have been strictly "scientific" in the model of epidemiological studies, but it was a valuable tool in their legal battle against the company responsible for the pollution, in their political battle to get local and state government to act, and in their organizing of community residents.

Literacy Work

This is literacy work, if we interpret literacy as not just the technical ability to read and write, but the use of these skills in daily life to solve problems and make a better world. For the research teams it was also empowering. Although the knowledge they were gaining was alarming, they were in control. For the first time, they saw themselves as knowledgeable and insightful people, not as second-class citizens with little formal education. They confirmed the value of the community's knowledge, and they had access to at least some of the official knowledge as well.

Bumpass Cove and Yellow Creek showed me, if I had ever doubted it, the power of accessing and using knowledge to accomplish important work on issues people care about.

If research is to be such a tool, it has to be done in a different way from any of the traditional approaches. Participatory research for action, what we have come now to call Participatory Action Research (PAR), is not a research method, but an approach to research and to learning that may use different methods. Three ideas are central to PAR: participation, action, and knowledge.

PAR is participatory. It starts from the premise that research should be owned and controlled not by researchers but by people in communities and organizations who need the research to act on issues that concern them.

PAR is defined by the need for action. Research is initiated by people coming together to address issues or problems in their lives. Action gives a clear purpose for doing research, and a yardstick by which to measure how useful the research is.

PAR creates knowledge, but not for the sake of knowledge alone. It tries to bring together knowing and doing or, as Patricia Maguire says, "the doers and those historically done to."[1] Participatory researchers, no matter what methods they use, affirm: "... that people's own knowledge is valuable ...[they] regard people as agents rather than objects, capable of analyzing their own situations and designing their own solutions."[2]

PAR projects are many and varied, with different degrees of participation and many research methods. Although simplified, walking through a "typical" research process may help clarify the points at which PAR differs from conventional approaches to research.

Traditional research, whether qualitative or quantitative, is thought up by and carried out by researchers "on" other people. "Subjects" provide information which researchers need, but their knowledge is taken away from them and processed somewhere else.

Researchers may be driven by their own curiosity. They may be driven by the agenda of powerholders: funders of research, government, foundations, corporations. Even if they believe the research is in the best interests of their "subjects," those interests are defined by the researchers, not by the people being studied. In the name of objectivity and avoiding bias, traditional top-down research systematically excludes those who are being researched. There are hopeful signs of change in adult education research — inviting learner and practitioner views on research priorities, and a growing interest in teacher inquiry, but too much still follows traditional paths.

In PAR, in contrast, those who would traditionally be the subject of research decide what problems are worth investigating and what the important research questions are. Sometimes the community members themselves also conduct the research — carry out interviews, raid the libraries — sometimes experienced researchers carry it out, but invited by and in collaboration with the group. From that participation comes learning and, ultimately, empowerment.

An article like this necessarily skims over many details and the complexity of real research in real communities. In truth, the variation in PAR projects is immense. Some don't even look like traditional research at all — they may look like community theater, perhaps, or use visualization and mapping techniques to synthesize community knowledge without using texts. While in their purest form, PAR projects are initiated by the community and researchers are invited in, in others researchers committed to this approach search out communities to work with and create effective collaborations which benefit both the community and the researcher. Rather than a single model, PAR is more usefully seen as a range of projects on a scale of increasing participation.

Participation is not an easy idea to put to work. It may be problematic to figure out just who the "community" is. Is it geographic, or a community of interest? It may be divided by lines of gender, race, class, age, religion, sexual preference, and others. There may not be a ready-made group with which researchers can work. Full community participation in research is also difficult to sustain over the long haul, especially without an organization. People who are not professional researchers have other demands on their time and energy.

The action in PAR can also be problematic. Sometimes pushing for an action may threaten the most vulnerable members of the community. In Bumpass Cove, for example, research team members were later attacked as Communist sympathizers. Taking action can give people the confidence to keep going, but if it is unsuccessful, it can turn them off and make it harder to act in the future. It can be divisive as well as bringing people together. Community organizing is time-consuming, slow, and the rhythms of the research project may not be comfortably with the rhythms of community organizing and action.

Negotiating the search for knowledge between researchers and community can also be tricky. Tension may arise between the professional researcher's interest in knowing and the need for knowledge for community action. Researchers' standards for what is enough may not be the same as community standards. It may be difficult to verify what people believe they know from their own experience. Engaging in dialogue with people about what they know and what they don't, about how to interpret and what it means, is a delicate process.

PAR is not just about research, but also about learning and about action. And if adult education programs and practitioners are open to it, PAR may be a strong tool for improving program and practice. As an example of its potential, we might look at PAR in program evaluation. Learners' voices would be integral, identifying important evaluation questions, providing some of the answers, and planning program changes. Evaluation would shift from a judging process to a learning process in which everyone has something to

PAR and Adult Education

Within the fold of adult education research, PAR already has a place. For example, in Ivanhoe, Virginia, a community that was dying after the closure of its mines and industries began to revive itself. Helen Lewis, a sociologist, and Mary Ann Hinsdale, a theologian, worked with the Ivanhoe Civic League in participatory research to document the community development process.[3] The Civic League asked Helen Lewis to teach a course in Ivanhoe on community history, and members of the class planned, researched, and wrote a book on the community, which involved many community members in interviewing and being interviewed, and collecting old photographs.

In Carpinteria, California, an anthropologist found her role as a researcher transformed when she was drawn into working with parents in the community on communicating with schools.[4] Faced with requests for help, she moved from being a "disinterested observer" to supporting an emerging parents' organization providing advice to Latino parents on how to help their children be successful in school, and how to relate to teachers.

In North East Arnhemland, Australia, the Yolngu community has been using participatory research as part of a major transformation, in which control and responsibility for education has shifted to a Community School Council. The curriculum and pedagogy are being redesigned to include traditional knowledge, and community-based teacher education is being developed.[5]

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learn from thinking through what we need to know, identifying researchable questions, gathering information, systematizing it and analyzing it, planning and making decisions about changes. All stakeholders would work together to help each other meet their goals, to build a strong organization, develop expertise, and create community.

As we see, PAR is about action. Its purpose is not to generate knowledge that is filed away or taken away to Washington to be lost in the political maneuverings around public policy, but to provide a solid and thoughtful basis for change — and not just any change, but one that benefits the people who will be affected by it. That is the core challenge that PAR presents to the world of educational research: are we making a difference where it matters, in the world of practice, in the place we can work?

A special thanks to the Hubbard Center for providing us with photos.

Endnotes

1 Patricia Maguire, "Proposing a more feminist participatory research: Knowing and being embraced equally in the knowing," Kemmis and Mctaggart, Maureen Mattai (eds.) *Participatory Research in Health: Issues and Experiences* (London: New Jersey: Zed Books, 1988), p. 32.

2 Andrea Cornwall and Rachel Jewkes, "What is participatory research," *Social Science Medicine*, 41:12, 1995, p. 1670.

3 Mary Ann Hinsdale, Helen M. Lewis, and S. Maxine Waller, *It Comes from the People: Community Development and Local Theology* (Philadelphia, PA: Temple University Press, 1995).

4 Concha Delgado-Gaitan, "Researching change and changing the researcher," *Harvard Educational Review*, 63:4 (1993).

5 See Raymond Mamka, Dorothy Gilroy Ngumwaithaa, and Irene White, "Always together, Yaka Gima: Participatory research at Yirkala as part of the development of a Yolngu education," *Convergence*, XXV (4) (1992), 23-31. •

NCSALL'S Research Projects

The goal of NCSALL's research is to provide information that can be used to improve practice in adult literacy programs. NCSALL has undertaken the research projects listed below, and over the next few years, may add projects.

Assessment: Explores the impact of participation in adult learning and literacy programs have on an adult's life and ways to assess this impact, and measures of instructional outcome that predict that impact. Beth Bingman, Brenda Bell, UT; Hal Beder, RU.

Longitudinal: Builds a national longitudinal data collection structure that can follow adult learners over a long period of time to look at patterns of participation, impact, achievement and factors that lead to successful learning. John Comings, HGSE.

Adult Reading Diagnostics: Develops a portrait of the instructional strengths and needs in reading of adults enrolled in ABE and ESL classes. John Strucker, HGSE.

Health and Adult Literacy: Explores the mutual benefits of introducing health topics into ABE, ESL, and ASE classes. Focuses attention within both the health and adult learning communities on the value of cooperation. Bruce Rudd, HSPH.

Literacy Practices of Adult Learners: Examines how adults in literacy classes use literacy skills in their daily lives, the relationship between the degree and type of everyday use of print to the degree of literacy growth, and the types of interventions that might best increase the degree of everyday literacy activity. Victoria Purcell-Gates, HGSE.

Adult Multiple Intelligences: Examines how the multiple intelligences theory can support and enhance learner-centered instruction and assessment in ABE, ESL, and ASE programs. Silja Kallenbach, WE; Jodi Viens, HGSE.

Staff Development: Explores current practice, best strategies, and effective models for statewide staff development. Studies the impact on ABE teachers and cost effectiveness of the three most common approaches to staff development. Cristine Smith, WE.

Adult Development: Tests the hypothesis that coping with the demands of adult life requires a qualitative transformation of mind analogous to the change from magical thinking to concrete thinking required of the school-age child or the development from concrete to abstract thinking required of the adolescent. Robert Kegan, HGSE.

Learner Motivation: Develops a base/field analysis that will present a comprehensive picture of the factors that work against or support the motivation of adult learners to persist in ABE, ESL, and ASE programs. John Comings, HGSE.

GED Impact: Investigates whether the acquisition of the GED improves labor market outcomes for school dropouts. Richard Murnane, John Willett, John Tyler, HGSE.

Institutions: HGSE: Harvard Graduate School of Education; HSPH: Harvard School of Public Health; RU: Rutgers University; UT: University of Tennessee; WE: World Education, Inc.

A New Center for Research on Adult Learning and Literacy

by John Comings and Cristine Smith

NCSALL

"By the end of the grant period, adult learning and literacy practitioners around the country will be able to point to specific ways in which the National Center has helped to improve their individual practice."

This quote from our proposal sets out the criteria that will be used to judge the success of the newly-established National Center for the Study of Adult Learning and Literacy (NCSALL). We welcome help from all of *Focus on Basics*'s readers on how we can better serve you, and we encourage you to write or e-mail comments at any time.

NCSALL is a joint project of the Harvard University Graduate School of Education, World Education, and the Center for Literacy Studies at the University of Tennessee. Our funding comes from the U.S. Department of Education through its Office of Educational Research and Improvement's Institute for Postsecondary Education, Libraries, and Lifelong Learning. Later in our five year grant, we will add partner institutions in the Midwest and West so that we will have a truly national structure.

NCSALL's research agenda was informed by a national study that involved more than 450 practitioners in an exercise that asked which questions were of the highest priority to them. The input from this study produced four broad questions:

- **How can the motivation of the individual adult learner be sustained and enhanced?**
- **How can classroom practice be improved?**
- **How can staff development more effectively serve adult learning and literacy programs?**
- **What impact does participation in adult learning and literacy programs have on an adult's life and how can this impact effectively be assessed?**

While NCSALL is beginning a program of research based on this agenda, we believe that the agenda still needs more work to increase its usefulness as a guide to research and development. The agenda that came out of the initial study needs specific research topics under each of the four major questions, and the field should have a chance to suggest priorities as to which topics should be explored first. Over the next year, we will involve practitioners from across the country in the development of a comprehensive national research agenda that will ensure that NCSALL's research does help improve practice.

Even the best research has little impact if it doesn't reach practitioners. To ensure that research findings have an impact, NCSALL is supporting a Dissemination Initiative that includes *Focus on Basics*. The Dissemination Initiative is working with the National Institute for Literacy's LINCS network to develop a web site that will make the products of NCSALL available electronically. Next year, NCSALL will begin publishing the *Annual Review of Adult Learning and Literacy*, which will contain articles that bring together the state of the art from research and practice around critical issues identified in the agenda-setting process. The most ambitious effort will be the establishment of a national Practitioner Network. The goal of this network will be the creation of a systematic partnership between practitioners and researchers that will support a dialogue helpful to both.

By reading this issue of *Focus on Basics*, you are already involved in NCSALL's work. Please look for the 1997 *Annual Review of Adult Learning and Literacy* in January of 1998. And visit our web page; the address is below.

If you don't have personal access to these resources, encourage your program, state literacy resource center, a local college or university, or a public library to make them available. Let us know if our publications are useful, get involved in the agenda-setting process next year, and feel free to send us letters or e-mail about what we are doing well and how we can improve. You can write to:

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NCSALL's web page URL:
http://hugse1.harvard.edu/~ncsall

BLACKBOARD

Suggested Reading

Participatory Action Research

• Peter Park, Mary Brydon-Miller, Budd Hall, Ted Jackson (eds.). *Voices of Change: Participatory Research in the United States and Canada*. (Westport, Connecticut: Bergin and Garvey, 1993).

• Patricia Maguire. *Doing participatory research: A Feminist Approach*. (Amherst, Massachusetts: University of Massachusetts Center for International Education, 1987).

• Ian Barnsley and Diana Ellis. *Research for change: Participatory Action Research for Community Groups*. (Research Centre, 1012245 West Broadway, Vancouver, BC V6K 2E4, Canada, 1992).

• Lee Williams. "An annotated bibliography for participatory and collaborative field research methods". (University of Tennessee Community Partnership Center, Hoskins Room 108N, Knoxville, TN 37996-4015).

Quantitative Research

• Edward R. Tufte. *Data Analysis for Politics and Policy*. (Englewood Cliffs, NJ: Prentice Hall, 1974).

• W. Paul Vogt. *Dictionary of Statistics and Methodology: A Nontechnical Guide for the Social Sciences*. (Newbury Park, CA: Sage Publications, Inc., 1993).

• Richard M. Jaeger. *Statistics: A Spectator Sport*. (Newbury Park, CA: Sage Publications, Inc., 1990).

Qualitative Research

• Norman Denzin and Yvonna Lincoln. *Handbook of Qualitative Research*. (Thousand Oaks, CA: Sage, 1994).

• Evelyn Jacob. "Qualitative Research Traditions: A Review." *Review of Educational Research*, 57, 1987, 1-50.

Teacher Research

• M. Smith, and S. Lytle. *Inside Outside: Teacher Research and Knowledge*. (NY: Teachers College Press, 1993).

• L. Hall, C. Campbell, & E. Mach. "Class Acts: Teachers Reflect on Their Own Classroom Practice." *Harvard Educational Review* Reprint Series No. 29.

Where to find research on adult learning and literacy

Adult Education Quarterly: A Journal of Research and Theory in Adult Education is published four times annually by the American Association for Adult and Continuing Education, 1200 19th Street, NW, Suite 300, Washington, DC 20036. Subscriptions $80/yr, $12 individual copies. AAACE members may receive the *Adult Education Quarterly* as part of their membership dues.

Literacy Networks, a publication of the State Literacy Resource Center at Central Michigan University, is a journal that serves as a bridge between communities of providers and as a forum for important issues concerning literacy. The next issue of *Literacy Networks* will be out in Fall 1997. For more information, please contact: State Literacy Resource Center, Central Michigan University, Room 219, Mount Pleasant, MI 48859. Phone: 517-774-3680.

International Reading Association (IRA) Newsletter, 800 Barksdale Road, PO Box 8139, Newark, DE 19714-8139, phone: (302) 731-1600, Fax: (302) 731-1057.

Harvard Educational Review is published four times a year by the Harvard Graduate School of Education, Gutman Library, Suite 349, 6 Appian Way, Cambridge, MA 02138-3752. Subscriptions $40/yr, individual issues, $10.00.

Clearinghouse Information/Resources

Several federal agencies and academic institutions support clearinghouses which produce materials useful to adult literacy practitioners, including books, research reports, factsheets, digests and bibliographies. As these materials often are available in both paper and electronic format, the list below provides the phone number and the Web site address.

US Department of Education (USDOE) (202) 205-9988; http://www.ed.gov

ERIC Clearinghouse on Adult, Career and Vocational Education (ACVE) (800) 848-4815 http://www.ace.ohio-state.edu/units-education/cete/eric-ve/index.html

Institute for the Study of Adult Literacy (ISAL) (814) 863-3777 http://www.psu.edu/institutes/isal

National Clearinghouse on ESL Literacy Education (NCELA), an Adjunct ERIC Clearinghouse at the Center for Applied Linguistics (202) 429-9292; http://www.cal.org/ncle

National Institute for Literacy (NIFL) (202) 632-1500; http://novel.nifl.gov

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INSIDE THIS ISSUE

1
Learning to Love Reading
Donna Earl

5
There's Reading . . . And Then There's Reading
Victoria Purcell-Gates

9
Models of Reading and the ESOL Student
David E. Eskey

11
Rediscovering Themselves: Learning to Read for Survival
Melissa Nieves

13
What Silent Reading Tests Alone Can't Tell You
John Strucker

17
The ESOL Adult and the Push Towards Meaning
Judith Rance-Roney

18
Reversing Reading Failure in Young Adults
Mary E. Curtis and Ann Marie Longo

22
Reconceptualizing Roles: Mathematics and Reading
Mary Jane Schmitt

Learning to Love Reading

by Donna Earl

I have been teaching adult beginning reading classes for five years in a center located in an old elementary school in the mountains of north Georgia. Teaching adults in a rural mountain community has been both a joy and a challenge. The Southern Appalachians, while culturally rich, are often economically and educationally poor. Mountain people, long isolated from the outside world, have developed solid family ties and a strong oral language, but have traditionally placed little emphasis on education. While this appears to be slowly changing, for too many adults in our community, reading is difficult or even impossible.

In the fall of 1995, I participated in a practitioner research project that gave me the chance to work with a network of adult literacy providers from across the state. Choosing an area in which to conduct research was not difficult. The greatest problem I faced was helping those students who failed to make any significant progress, through my observations and their own, in spite of their personal motivation, commitment, and apparent ability to learn. Over the years, I have had ten or 12 students who came to class faithfully, studied at home, willingly tried new techniques in class, and still made agonizingly slow progress. These students ranged from a 19-year-old high school graduate who wanted to improve her reading skills

continued on page 3

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Focus on Basics is the quarterly publication of the National Center for the Study of Adult Learning and Literacy. It presents best practices, current research on adult learning and literacy, and how research is used by adult basic education teachers, counselors, program administrators, and policy makers. *Focus on Basics* is dedicated to connecting research with practice, to connecting teachers with research and researchers with the reality of the classroom, and by doing so, making adult basic education research more relevant to the field.

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NCSALL

National Center for the Study of Adult Learning and Literacy

Building A Research Agenda

con•sen•sus: *an opinion or position reached by a group as a whole or by majority will, a general agreement or accord.*

The American Heritage Dictionary of the English Language, Third Edition

Dear Readers,

NCSALL based its initial research agenda on a survey of 150 practitioners, administrators, policy makers, and scholars from around the country. Though that survey was a useful exercise, it was only a beginning. NCSALL is continuing this process. We hope to reach a consensus as to what the most important research and development questions are and how they should be answered. The National Institute for Literacy (NIFL) is a partner in this effort.

This consensus building process will require broad participation from the field of adult learning and literacy. It will result in the publication of a comprehensive national research agenda for adult learning and literacy and several special agendas on topics that may include English for Speakers of Other Languages, staff development, and technology. This agenda will inform the work of NCSALL and other research institutions as well.

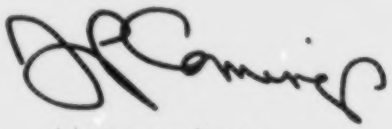
NCSALL and NIFL are also working on a broader consensus building effort in collaboration with U.S. Department of Education's Office of Vocational and Adult Education (OVAE) through its Division of Adult Education and Literacy (DAEL). Together, these three institutions will provide an opportunity for the field of adult learning and literacy to describe where it is now, where it wants to go, and how it wants to get there. The research agenda will be part of the plan to realize this vision.

We believe that on many of the most important issues, a consensus already exists, and this process will help to articulate that vision. On those issues where a consensus has not yet been reached, the different opinions will be described so that a national debate might either lead to a consensus or to a majority opinion. The final product will be a document that describes a vision for the future and a course of action to achieve that vision.

Over the rest of 1997, these three institutions will hold meetings, convene focus groups, and seek input via the Internet and in writing from adult learners, practitioners, administrators, policy makers, and scholars. This input will be summarized in a written form that will be discussed in many different venues, including the AAACE meeting in Cincinnati in November. As the consensus becomes clear, it will be described in a document for discussion at a national adult literacy summit in the late spring or early summer of 1998.

The easiest way to keep informed of this process is to make periodic visits to our web page, but we will also make announcements on the various adult learning and literacy related listservs. If none of these are available to you, please request information by mail.

Sincerely,



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Love Reading *continued from page 1*

enough to get a job to a 55-year-old grandfather who was tired of job advancements passing him by. Several young men came to class desiring skills so they could read their own job manuals, and one older man wanted to read his Bible for himself. Drawing on methods learned during my years as an elementary teacher and in graduate school, I had tried both traditional strategies such as phonetic analysis and language experience, and novel interventions such as the use of color and music to enhance learning. We even tried Barbara Vitale's (1982) colored transparencies over the reading material. These approaches led to little discernible progress. One student had gained six months on the reading comprehension sub-test of the Adult Basic Learning Exam (ABLE). He had attended class faithfully for four years. Another student had made two years' progress in her first year of class and had then made no further gains. Not all students experienced these problems, but for those who did, it was very frustrating.

I went to the first practitioner inquiry retreat hoping to find "the key" I had been missing. This did not happen. My peers were also puzzled by this and had experienced much the same with their own students.

A literature search unearthed little concerning adults learning to read. However, when I looked at literature dealing with teaching children to read, the overwhelming consensus was that children must spend a great deal of time practicing emerging skills if they are to become proficient readers. Gillet and Temple, in *Understanding Reading Problems: Assessment and Instruction* (1994), document numerous studies such as Collins (1980) and Manning and Manning (1984), which point to the positive correlation between time spent reading and reading achievement. They state that people learn to read by reading and that, "we must use all our creativity and all our influence to get every student, especially the remedial reader, to read real books every day."

Later I found articles that supported the concept of adult beginning readers needing to read a great deal as well. According to Iago (1995), "the more a person reads, the easier the act becomes." Fink and Devine (1993) propose that many low-level readers read poorly because they never practice the skills they have. Only by practicing emerging skills do beginning readers develop the fluency and automaticity needed to become able readers. They suggest encouraging adults to develop the habit of reading regularly.

Discussions with my current students, so many of whom had been studying with me for a number of years, revealed that they rarely, if ever, read at home. We had talked about the importance of doing so, and I had modeled reading, read aloud, and provided as many books and magazines in the classroom as I could find. In spite of my efforts, students rarely read anything at home. This led me to think about ways to motivate them to read more outside of class.

> ***"They rarely, if ever, read at home."***

I decided to investigate two related areas. My primary research question was whether the students in my ABE program would experience greater gains in reading fluency and comprehension after reading for 15 minutes or more a day than they had without doing this reading. The second focus was the influence of personal incentives on student motivation to do the reading outside of class.

Initial interviews with each student determined what, if any, materials they read at home and how much time they spent reading outside of class. Very little time was spent reading at home; in most cases, less than 15 minutes a week. Some students read the local weekly newspaper and a few tried to read the Bible. Next, I gave a battery of tests to measure reading ability and fluency before the project. These tests included the ABLE Level 1, an informal reading inventory taken from Nadine Rosenthal's book, *Teach Someone to Read* (1987), and a taped oral reading. The results of these tests showed the students to be reading at a wide range of ability levels. Scores ranged from below first grade level to 6.7, with the average score 5.0.

I then gave the students weekly reading logs. They filled in their logs with the titles of the material they read outside of class, the amount of time they spent reading, and what they thought about the material. Each week, they turned the logs in and took another.

We discussed the idea of incentives to help motivate them to read outside of class. The students had selected pens, mugs, book bags, etcetera, from catalogs, and also planned how we should distribute the prizes. We would have a drawing whenever a student reached a reading milestone — for example, five hours of outside reading.

The winter of 1996 was severe here in north Georgia. We missed more than three weeks of school due to icy roads. Despite missing a day or two each week, however, most of the students carried on with their reading at home. Our shipment of incentives was delayed by the weather as well, and not one student ever asked about it. When it arrived in March, the students laughed and said they had forgotten there were supposed to be prizes. Several suggested that we save them until the end of the project, since they were remembering to read at home without them. When I questioned further, two students said that keeping the weekly reading log was reminder enough. One gentleman, Jim, said he had always wanted to read but never found the time. "That log sheet reminds me to make the time," he stated. So, we kept the "incentives" and gave them out at the end of the project.

After three months, I gave post-tests. They included the same battery of tests in alternate forms and a second taped oral reading. I conducted closing interviews and handed out the prizes. The eight student participants logged in a total of 318 hours of reading outside of class. Bobby, the student with the lowest reading level, read a total of three hours in ten-minute segments. Another student, Joe, logged in 108 hours, averaging close to ten hours a week.

Tests revealed measurable changes in reading ability. No student lost ground in any area tested and all students showed significant progress on the

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continued on page 10

Reading Comprehension sub-test. The class average on that sub-test went from a grade level of 5.6 to 7.8, a gain of 2.2 grade levels in three months. Each score was also the highest score that student had ever achieved. Improvement was also noted in oral reading, in the areas of expression, smoothness, and attention to punctuation.

We also observed many life changes over the course of the project. One student bought a book for herself that she had read in class. Another began reading to her child every evening. Jim began reading scripture passages aloud in class and to his church. Twice he read verses over the local radio station. Students began to check out books from the classroom library more often, and several borrowed books from me and from the GED classroom. They began to share in the selection of new books from catalogs and willingly told others in class about books they had enjoyed.

One morning, Jessie met me at the door with a book of short stories in her hand. As she gave me the book, she asked me to read a certain story. "It's the funniest story I ever read. You've got to read this," she explained. I sat down to read, while she watched, expectantly, over my shoulder. When I got to the climax, she laughed with me, sharing the joy of good literature. This was the highlight of the project for me: a moment which is shared rather than taught.

The students began noticing changes in their own lives. They said that they read more than they ever had. Jim said he could understand more. Anne's husband commented that she didn't ask for help as often as she had, even though she was reading a lot more. Joe expressed it best when he said, "I love reading now; I didn't before."

Conclusions

My conclusions are two-fold. First, my class's experience supports the theory that reading outside of class does have a positive effect on the reading abilities of ABE students. The test results bear this out and the students expressed this, too. Second, filling out the logs and turning them in weekly was a great motivational tool. The students enjoyed keeping the logs and felt that they reminded them to keep reading.

I have several recommendations based on this project. One, certainly, is to encourage ABE students to keep daily reading logs. Another is that teachers acquire a classroom library of books and materials for students to check out. I believe that having a variety of high interest, low-level materials readily available was critical to the success of this project. Involving students in the selection of books for the classroom seems to be important, too. Students were more enthusiastic about checking out books they had chosen and for which they had waited than they had been about books which had been selected for us.

Further research is, of course, needed. Weaknesses of this project include the small sample size and the lack of a control group. The study was also limited by the homogeneity of the students. The students in my classroom were white, low-income adults, living in a rural area. Increasing the number of participants considerably and extending the research to differing racial, socioeconomic, or cultural groups would add depth to the study and would increase generalizability.

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There's Reading . . . and Then There's Reading

Process Models and Instruction

by Victoria Purcell-Gates

"I need to read better."

What does it mean when adults come to us for help with reading? What is it that they want help doing? What do they mean by 'reading'? What do we, as teachers of adults, think they mean? And what do we mean when we say we teach 'reading'?

These are not meant to be metaphysical questions. They are questions that are immediately relevant to our daily instruction and to our ongoing decisions about the needs of learners. As Harste (1984) put it, our assumptions do matter. If we are to guide and direct our students, we need to know where we are going, which paths are the most likely to get us there, and which paths are most likely to be dead ends. This means that, as teachers of reading, we must be cognizant of our underlying beliefs or theories of literacy development: how one begins to learn to read and how one develops from that point into an increasingly effective reader with a broadening range of texts. As teachers of adults, we must know — in the sense of holding beliefs that are grounded in experience and information — how this literacy development is affected by the knowledge, experiences, and cognitive stage of adults.

In this article, I will discuss some current, broad theories of the reading process and their implications for adult literacy instruction. I am defining 'theory' as an explanation of a phenomenon like the reading process; a 'model' thus serves as a metaphor for that phenomenon, or in this case, reading process (Ruddell, Ruddell, & Singer, 1994). So while some of the theories I will explore have accompanying models, not all of them do — and may never, because of the difficulty of capturing in a two-dimensional model the dynamism and socially-contextualized nature of the reading process described by the theories.

The pie of reading process theories can be cut several ways. I am going to categorize these approaches as they reflect different emphases on pieces of the process rather than attempt to draw totally competing theories like 'top-down' versus 'bottom-up.' Most reading theorists, such as Marilyn Adams, P. David Pearson, and Michael Pressley, have abandoned such all or nothing approaches and embrace some form of interactive theory of the reading process, while prioritizing different parts of it. First I will describe some theories that emphasize the role of letter and word recognition; then discuss theories that stress the role of comprehension over letter and word recognition; and finally explore newer theories that highlight the role of social and cultural context in the process of reading. As you read these descriptions, you will probably recognize yourself in more than one camp. This is perfectly reasonable, given that all theories are attempts to characterize the same process.

Letter and Word Recognition is Key

"You can't read unless you look at the print and recognize the letters and then recognize the words." Who can argue with this?

Several prominent theories detail the letter and word recognition parts of the reading process, with slightly different foci. Gough's (1972) model took an information processing lens and tried to describe the flow of information during the reading process. According to Gough's model, the reading process is linear, with letters being recognized first feature-by-feature by a visual system and then transferred to a sound (phonemic) system for recognition and held until the next letter is processed in the same way. When words are recognized (processed) they are held in working memory until

Implications for Instruction

Skills-Driven Models

Teachers who operate under beliefs about reading process and development similar to those discussed in the section "Letter and Word Recognition is Key" will want to focus heavily on the skills and abilities needed to accurately and automatically recognize letters and words. They will see these skills as not only crucial but primary, in that they must be mastered before comprehension can take place. Therefore, students will be taught how to discriminate and recognize individual letters first (visual) and then to discriminate and assign individual letter, or letter combinations, to individual sounds. While there are many approaches to teaching decoding via sounding out, all such instruction that reflects the letter-word primacy of reading emphasizes decoding to automatic levels first and then increased focus on comprehension. While comprehension difficulties, in and of themselves, are possible, students who "cannot read" or "cannot read well enough" are viewed as potential decoding problems first until this is ruled out through diagnostic tests or diagnostic teaching.

Drill and practice in decoding skills, as well as phonemic awareness training, are recommended and practiced by proponents of this view. There is no concern about teaching 'isolated skills' since, within this reading theory, to isolate pieces of the decoding process is to make them easier to grasp and practice. In addition, though, the authors of these theories suggest that their theories implicate the following instructional activities as well: repeated readings of text to increase accurate and automatic word recognition; providing texts that are easier to read if the student's problem is decoding; and the reading of interesting and emotionally satisfying texts as long as one is able to accurately decode the words.

Comprehension-Driven Models

Teachers who hold beliefs about reading similar to the Transactional Sociopsycholinguistic model of reading

continued on page "

they are processed for underlying meaning and finally understood as sentences and ultimately texts. In summary, Gough's description of the reading process is letter-by-letter and word-by-word in an additive fashion.

LaBerge and Samuels' model (1974) of the reading process brought us the concept of 'automaticity' in word recognition. Like Gough, word recognition is primary and needed for the later work of comprehension. Comprehension is made possible, according to LaBerge and Samuels, when readers no longer have to expend all of their cognitive attention on the recognition of letters and words. This is because it is not possible to consciously attend to, and thus process information from, more than one event or stimulus at a time. A familiar example of this is the ability of an experienced driver to navigate a route by car while engaging in a spirited conversation with a passenger. The driver must cease talking when an unexpected event occurs in the surrounding traffic that requires the transfer of attention. What makes driving in familiar circumstances while engaging in conversation possible is the automaticity of the driving processes. When a process becomes so familiar and expert, usually through repetition and practice, it becomes 'automatic' and does not require selective, or conscious, attention. This frees selective attention for other processes that do require it.

Decoding takes selective attention when it is unfamiliar or not fully mastered. And comprehension also requires attention. So, it is necessary to practice decoding skills to the point of mastery before the process of comprehension — the real goal of reading — is possible. The faster one becomes an automatic decoder — recognizes words without having to break them down and figure them out — the sooner one can attend to comprehending text.

Phonemic Awareness

Phonemic awareness is the third theory I will discuss that focuses on the primacy of letter and word recognition. This theory was recently eloquently explicated by Adams (1990), who, within a theory of the need for the attainment of automaticity, synthesizes a broad array of research to highlight the importance of letter-to-sound decoding in what we call 'reading.' Adams's review of research is formulated to respond to theorists — such as Frank Smith (1978) and Kenneth Goodman (1994) — who claim that skilled readers do not decode every single letter from right to left during actual reading. Rather, these theorists claim that readers process words as wholes and may even skip words, parts of words, or whole sections of text without losing meaning. Adams, however, claims that skilled readers do process words letter-by-letter, and that these letters must be translated into sound units to be pronounced and thus understood. Developing readers must learn to do this to progress beyond the limits that are imposed by relying solely on visual recognition and memory of the thousands of words. Chall (1991) one would need to recognize at sight for competent reading. However, perceiving language at the phonemic level (the smallest, isolatable unit of sound) — hearing the individual sounds in *cat* (k - a - t) for example — is not easy and, for some readers, impossible without skilled intervention. Adams' model includes mental processors for the visual recognition of letters, context, and meaning as well as for the phonological processing I have briefly described. That makes her model similar to the interactive models discussed below. I put her in this letter-word recognition category because of the emphasis by her and those who cite her on the crucial role of accurate and automatic phonological processing.

Comprehension is Primary

Reading is comprehending from print. Decoding is not reading. Only comprehension is reading." Who can argue with that?

Standing opposed to those theorists discussed in the preceding section are those who do not want to view decoding (perceiving) comprehension either in or like processing of print or in emphasis of sequence in reading instruction. These theorists see the process turned around. As they speak of readers, they say (using all of their experiences and background knowledge for the reading task). They expect

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meaning from print and they coordinate various language cue systems (pragmatic, syntactic, semantic, and graphophonic) to get at that meaning. Kenneth Goodman's model (1994) of the reading process probably typifies this theoretical stance best for most professionals. He originally referred to his model as a psycholinguistic one to reflect its language-processing essence; he now terms it a "Transactional Sociopsycholinguistic Model of Reading," capturing the recent theories of transaction and the influence on language use of social settings and pragmatics: rules for language use that differ according to different social contexts.

According to this model — and, as above, I am simplifying it without, I hope, changing its essence — readers begin the act of reading by recognizing that they are reading and sampling and selecting from the visual array (letters and words) based on their predictions of what they expect to find. These predictions result from informed inferences about the meaning as it is supported and conveyed by the syntax and the graphophonics (letter-sound units). As readers read in this fashion, they confirm or disconfirm their predictions by using their knowledge of the different language cue systems to detect when meaning breaks down. When a breakdown in meaning occurs, and is detected, readers go back and correct, again employing the different language cue systems as they are appropriate. Goodman calls these actions by the reader "cognitive strategies."

Reading, within this theory, is not linear but cyclical. Visual, perceptual, syntactic, and semantic cycles are constantly in play, each dependent on and enabling the others. In addition, reading, according to this theory, is goal oriented, with the goal being meaning. Using inference and prediction, the reader can continue to move toward meaning without completing the optical, perceptual, and syntactic cycles. Thus, as opposed to the theories described in the preceding section, comprehension is not dependent on linear, accurate, automatic decoding and letter-word recognition.

While all the reading theories discussed in this article include comprehension as an important aspect of reading, Goodman's theory — and, by implication, all others categorized with it — makes it the center of the process, beginning, during, and after. He specifies comprehension as a transaction between reader and text. Within a transactional theory of the reading process (Rosenblatt, 1994), the meaning does not reside solely in the text. Nor does it reside only in the reader. Rather, when reader and text interact — i.e., when a reader reads a text — the meaning that the reader constructs from the text is a third entity, not exactly what the author created nor what the reader could have created without a text. Therefore, each reading — whether by the same reader or by a different one — involves a different transaction and, thus, a somewhat different meaning.

> *". . . all theories are attempts to characterize the same process."*

Under this theory, beginning readers learn to read much the way they learned to talk: by being immersed in many purposeful and functional instances of language (print) use, they will feel compelled to join in, taking from the input the necessary cues to make sense and grow increasingly competent and conventional as readers and writers. As they participate in actual reading and writing, they will deduce and generalize from the linguistic input the underlying rules and patterns of the language in use.

Balanced Theories

"Learners need both to focus on meaning with real, authentic texts and to work on skills." Sounds reasonable, even the best of both worlds, for increasing numbers of reading teachers.

Balanced reading instruction is a relatively new term and the concept engage in radically different instructional decisions and activities. Because meaning, or comprehension, is the driving force of the reading process, and because this process involves cyclical cognitive strategy use and synergistic relations between the language cuing systems, learners must always be dealing with whole texts which are read for authentic purposes. Breaking the process down into isolated pieces for purposes of practice is counterproductive because the reader does not have all of the cue systems to use nor can the reader engage in full cyclical strategy use in pursuit of meaning. Thus, isolated skill teaching should never be done. Rather, teachers help their students get control of different parts of the process while they are reading — and writing — whole texts.

Teachers who operate within this theoretical paradigm will have their students reading texts that they want to read, for self-chosen purposes. They will teach their students that, when they read, they should make sense of the texts at all times. These teachers will deemphasize accurate reading, often actively discouraging it in favor of 'translating' the text to the degree that it makes personal sense to the individual reader. While students in classes that focus on the primacy of letter-word recognition may often be asked to read aloud so that the teacher can check for accurate word reading, students in Goodman-like classes may never be asked to read aloud for accuracy checks because teachers do not want to over focus the students on accuracy at the expense of comprehension. If students do read aloud, it will be to share favorite parts or for the teacher to gain insight into the ways in which a student is coordinating appropriate strategies in pursuit of meaning.

Since comprehension, from this theoretical stance, is a personal transaction between reader and text, teachers will eschew the traditional comprehension questions for activities like response journals, book shares, or book discussions, all of which involve individual responses to text that are not judged correct or incorrect. Teachers would never want their students to read simplified or altered texts that are created for the sole purpose of teaching someone to read because the act of simplifying would corrupt the natural

continued on page 8

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language of the text and thus prevent the reader from employing innate language knowledge and strategies.

Beginning readers must engage with whole texts, under this theory, so teachers often employ highly predictable or memorized texts for these readers. Patterned language, such as jingles, songs, and poetry, allows beginning readers to employ their predicting, sampling, and selecting strategies and to successfully engage in confirming and disconfirming, with correction. Language experience texts, obtained by writing down texts the learners dictate, are also often used. Since these dictated texts involve the readers' meaning-making processes as well as language, they are highly predictable and thus appropriate for this level of reader.

Integrated Models

Teachers who espouse a balanced view of reading instruction (McIntyre & Pressley, 1996) appear all along the reading process continuum, from the 'skills' end to the 'holistic.' They all view comprehension as the only purpose for reading and stress meaning-making in their instructional activities. The more skills-oriented will not hesitate to teach isolated skills as well as involving their students in reading and writing of authentic and compelling texts. The more holistic-oriented view skills teaching as best done in the context of authentic and compelling reading and writing.

Sometimes referred to as 'whole-part-whole' instruction (Purcell-Gates, 1995, 1996), this teaching first involves students in purposeful (to the student) reading and writing, then pulls out some skills — ranging from decoding to text structure and comprehension — for focused work. The worked-upon skills are then 'plugged' into the literacy activity for consolidation and practice in the actual process of reading and writing.

Acknowledging the role of social context in language use, these teachers strive to teach, in a direct and straightforward manner, the different conventions and 'ways of doing' associated with reading and writing texts in different genres and for different purposes and audiences, such as science writing and reading, newspaper writing and reading, document writing and reading, science fiction writing and reading, etcetera. ◆

probably rests on a theory of reading that is close to Rumelhart's (1994) Interactive Model of Reading, although with a sociocultural aspect that is absent in Rumelhart's model. Rumelhart acknowledges the reciprocal influence of different levels of knowledge held by a reader — from letter featural knowledge of the features of letters to semantic knowledge — and models these levels of knowledge as operating in interaction with each other. In other words, readers read by focusing on comprehension and on letter features roughly at the same time, granting that the reading event begins with graphic input. Rumelhart differs from Goodman (1994) in that he sees the reader as processing all of the different letters and words but acknowledges that meaning and syntactic context influence perception and recognition of letters and words.

A sociocultural view of literacy questions the view that literacy is a generic process that is the same for everyone in all instances (Santa Barbara Discourse Group, 1994). Rather, this theory holds that literacy — and thus reading and writing — looks different and is practiced differently by different social groups, such as students, churchgoers, business people, clerks, and so on. Concerned much more with social setting, structures, and influences on literacy practice, sociocuturalists do not espouse any internal model of the reading process. As I understand this perspective, though, if such a model were to be conceived, it would reflect these sociocultural influences on the different levels of processing modeled by Rumelhart and Goodman.

In Conclusion

In conclusion, as teachers it is critical that we identify our assumptions and beliefs — and many of them may be quite implicit — about what it is we are trying to help our students do: what process we assume is the process these students are trying to master. With our own process models made explicit, we can better choose materials, activities, instructional procedures, and assessments that serve to foster this mastery. ◆

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Models of Reading and the ESOL Student:
Implications and Limitations

by David E. Eskey

Models of the reading process are models of an ideal reader reading: they tell us what such a reader does. By comparing how our real students do to a model, we can develop a much clearer sense of what our students' needs are and attempt to address these needs in class. For English for Speakers of Other Languages (ESOL) reading teachers, like other reading teachers, these models therefore have direct implications for teaching, though such models tell us nothing at all about other important aspects of reading.

Implications

Currently popular "interactive" models suggest that the most successful readers are both skillful "bottom-up" processors of texts — they can convert the language on the page into the information it represents both rapidly and accurately — and skillful "top-down" processors — they can relate this new information to the relevant knowledge they already have to construct a plausible meaning for the text. These models also tell us that successful readers do these two things simultaneously: they decode and interpret as they read. As they become more proficient in the former, eventually achieving automaticity, they can devote more attention to the latter, in what is technically called parallel processing. For teachers, the obvious message in this is that students who have problems with either kind of processing, or with both, will have trouble reading.

For ESOL readers, these problems are compounded at the decoding — bottom-up — level by their limited knowledge of the language. As a general rule, the more students read in their native languages, the more likely they are to become proficient readers of English, since good reading habits readily transfer across languages, but, as Clarke (1978) has pointed out, insufficient language skills can "short-circuit" this transfer. If the text contains a great many words or grammatical constructions these readers cannot decode, they will have trouble recovering the information contained in the language of the text and, in struggling to do so, will be prevented from engaging in efficient top-down processing. At the interpretive — top-down — level, even when working with texts they can decode, such students may lack the relevant background knowledge — schemata — on the subject of the text. American history or sports, for example, knowledge the writer has taken for granted, or they may have conflicting schemata based on different experiences and values. Thus even if they can successfully determine what the text says, they may be unable to determine what it means, or may simply misread it.

In teaching reading to ESOL students, we must therefore take great care in choosing the texts we ask them to read, with respect to both the language and the content of those texts, and we must also take great care to provide these students with both the language and the knowledge of the content they will need to make sense of any text assigned. Of course, this is easier said than done. Texts which are interesting to adults, relevant to their lives, and written in simple English are hard to find (but see Rosow, 1990; Brown, 1991 and 1988; and Mikulecky, 1988, for suggestions). One way of dealing with this problem is to develop effective pre-reading class activities to introduce new texts to ESOL readers — in other words, to bridge the gap between what the students know and what they will need to know to read assigned texts successfully. We can also teach our students various strategies to facilitate both their bottom-up and top-down processing. For bottom-up processing, activities that help students learn to read in larger chunks of text, and thus to break away from ineffective, and wearisome, word-by-word decoding (see Mikulecky & Jeffries, 1986, pp. 265-274, for activities). For top-down processing, think before your read activities can enhance comprehension of the text as a whole by requiring students

to think about the probable content of a text and to ask themselves what questions they will likely find answers to in that text (see Mikulecky & Jeffries, 1986, pp. 34-48, for activities).

Limitations

As useful as models of reading are in helping to shape teaching practices, they have their limitations. Models of reading deal with reading as a psycholinguistic process, which of course it is, but reading is also, and just as importantly, a form of sociocultural behavior which people choose, or choose not, to engage in, with major consequences for their ultimate development as readers — an area of concern for reading teachers to which models of reading have little to contribute. The major implication of this dimension of reading for the instructor is that just as we should do whatever we can to facilitate our students' text processing, we should also do whatever we can to motivate students to read, in

Authors, continued

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quantity, whatever they need or would like to read. Teaching reading strategies to students who do not in fact read much is like teaching mountain climbing strategies to desert dwellers: they won't practice enough to become good at it, and what's the point anyway?

As Frank Smith (1988) has argued, becoming a reader in any language means joining the people who read in that language, much as someone might join a club — in this case, what Smith calls "the literacy club" — devoted to some activity that he or she enjoys and would like to engage in. If this is so, then we should think of our classrooms as mini-literacy clubs where students not only learn how to read better but actually engage in a good deal of reading. Here again, ESOL students present special problems. Unlike native speakers, they have not been exposed to U.S. literacy practices and have — correctly — if they are literate in their own languages — been members of different literacy clubs in which people may read different kinds of texts in different ways for different purposes — texts considered worthy of memorizing, for example, like the Koran or *The Analects of Confucius*, texts which students may be expected to memorize. They will, in other words, have their own reading histories, ranging from not reading in their native languages to reading a great deal but having little knowledge of the texts they will have to read, or may want to read, in English and the ways in which we approach these texts. This is a very large part of the ESOL reading teacher's job: to introduce these students to the kinds of materials we read in English and the uses we typically make of them — from an application for a driver's license, to academic textbooks, to newspapers, magazines, and popular novels. Teachers must welcome students into the large and complex literacy club of those who read in English, and to do so at a level that makes sense for the particular students.

Just as students need to read rapidly and accurately, they also need to read extensively, and many current programs have been primarily designed to address this and have achieved some success in doing so (see Krashen, 1993, for examples and discussion). The question of how to motivate readers to read in sufficient quantity is certainly a sticky one, and the answer probably varies from class to class (see the article on page 1). A good place for us to begin is to protect our own love for reading by discussing what we are reading ourselves, why it interests us, how it relates to our everyday lives, perhaps even reading a few selected excerpts aloud, treating the students as fellow readers — then moving them to reciprocate.

Conclusion

Taken together, these two practical pursuits — facilitating the students' text processing, by which models of reading can make a more comprehensible, and motivating them to read in quantity, by helping them to join our literacy clubs — to which models of reading have little to contribute — constitute the major part of any reading teacher's job. But teachers of reading in ESOL must be especially attuned to students' language problems, to mismatches, in any given text between the writer's and the student's background knowledge, and to the problem of introducing students to materials these students might need or want to read in English and the uses we normally make of these materials. ❖

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Rediscovering Themselves:

Learning to Read for Survival

by Melissa Nieves

I came into the ESOL classroom ready to instill the English language into the minds of my students. I believed that I needed to drill and drill the grammar and sounds of English to teach efficiently. As a fledgling teacher at the University Settlement Society of New York, in New York City, I had a lot to learn about meeting the needs of learners.

That year I learned that my students were real people with pasts and a lot of pain from their childhoods. Many had limited views of the world and the possibilities available to them in the future. Many of the women — primarily immigrants from the Caribbean, Latin America, China, and Bangladesh — had less than a fifth grade reading level in their native languages and had not been to school for years. Many were in school because they were mandated by welfare to attend classes or have their welfare cases closed. Many felt contempt for the system for forcing them to attend classes. As a teacher I represented the system to them, so they were ready to take their anger and frustration out on me.

A Large Task

Setting out to develop a level of trust and communication in my class, I asked the students why they were coming to school. One student replied that she needed to learn English, but she didn't know why. A second told me she needed to get her check from welfare. A third student said she was on welfare but she wanted to get her GED and possibly go to college. I came to realize that my task as a teacher was larger than I ever imagined. Teaching words and sounds was the easy part; my true challenge would be to inspire my students to rediscover themselves, for some to regain inspiration for the future, and for others to develop their path for success.

The program director was a mentor to me and taught me how to begin the process of true education. I started learning to take into account my students' pasts and the issues that were relevant to them. I began to see that students bring to class every day concerns that act as barriers to learning. Throughout the year I observed behaviors that reflected my students' ongoing struggles. One student would start to cry when she was asked to read aloud. One student came to the classroom angry and refused to participate. Another student tried to belittle students whom she perceived as vulnerable. I also had students who were constantly late and absent. I knew that I had to deal with all this or I would never have a viable class.

I had the students talk about their problems, develop solutions, and plan for the future by writing their own stories and reading them aloud. As the teacher, it was essential for me to participate in the dialogue and to share stories about my struggles and accomplishments. I shared my experience as a child of parents who were factory workers and talked about how my father was an alcoholic, how I began working at the age of 13, how I worked full time to make it through college, and how I had to struggle in this country. I told them that they all could achieve what they wanted if they planned for their goals.

The students began talking about their hopes and dreams for themselves and their children. We developed text based on the topics we discussed. We did follow-up reading activities using literature written by other literacy students or magazine or newspaper articles that dealt with the issues we were discussing. In the following months, we continued our dialogue. Tears were shed as students relived their experiences: stories about being beaten by teachers when they were children, stories about being raped by step-fathers, stories about dealing with abusive husbands, and many others.

Bilingual Teachers

The fact that I am bilingual really enhanced the class. At the lowest levels of ESOL, students feel more comfortable talking about their lives in their native languages. At our program we offer classes taught bilingually in Chinese, Spanish, and Haitian. Teachers can use their native languages to talk about personal issues and also explain the rules of grammar, which are easier to teach in the students' native languages. The bilingual environment does not mean that English is not learned because all activities include English: writing activities as well as translated dialogues into English. Higher level ESOL classes are taught completely in English.

The model of teaching and learning we use challenges learners and teachers

Editorial Board

Issue 8: May 1997

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Themes of Upcoming Issues

September 1997	Multi-Level Classrooms
December 1997	Thematic / Content-Based Instruction
February 1998	Learner Motivation

alike to be vulnerable in the learning environment. It expects everyone in the group to begin to respect and trust each other. It forces individuals to explore the difficulties of the past and deal with their fears of the future. Our method is not easy to implement: it is easier for teachers just to teach and students just to learn words and sounds. But our approach is truly effective.

Many of the students in our program come from traditional educational backgrounds where the teacher was the sole source of information. They were told what to write and were taught to memorize information. They expect to see red ink corrections on their writing samples and want to compare grades on tests given back by the teacher. As a result, many of the students initially could not see the relevance of using their lives and issues as part of a curriculum. This comment illustrates their perspective: "Look, I am a poor woman with little education. I just need to learn a little English so I can survive in this city. My life is not what I want to talk about."

Three Phases

Working with my colleagues at University Settlement Society, we developed a three-phase model that addresses the tension between this view and our interest in using the lives of teachers and learners as part of the curriculum.

- **Phase 1**

In the first phase, to get the students accustomed to talking and reading about issues in their lives, and to build relevant English vocabulary, teachers use learning materials in which fictional characters deal with issues such as child abuse, domestic violence, limited education, and lack of health care. Classroom activities include debates, dictations, and writing. Students share their beginning writing activities with their classmates. They are exposed to theme-based learning and critical thinking activities, and develop portfolios of their work.

- **Phase 2**

In the second phase, with the teacher facilitating, the class begins to talk about issues as they pertain to their own lives. Students work on theme-based activities about their children, families, or communities. They create group texts, bring in relevant articles, and make presentations in English about their themes. Teachers lead traditional grammar and writing lessons addressing specific needs that arise in the course of the class. In this phase, students write one-page stories and use complete sentences in English with minimal grammar mistakes.

- **Phase 3**

In the third phase, the students develop journals and personal dictionaries — their own word lists — and may be ready to begin independent projects. Students choose a theme they want to work on by themselves and develop a presentation or piece of writing. Teachers assess the progress of the projects and create activities that support students in completing their projects. Students, working with their teachers, analyze their portfolios and journals, and begin developing written plans on how to reach their future goals.

Students begin to work as peer teachers in the lower level classes, assisting teachers in taking the new students through the process they have experienced.

Conclusion

The rate at which a class or an individual can move through this process depends on many variables. It depends on the teacher's ability to assess students' needs and progress and plan lessons accordingly. It depends on the teacher's ability to create a safe and comfortable learning environment for all his or her students. It also depends on the needs and goals of each individual student and on the commitment which the student has to his or her own education. Some students take two years to progress; others take six. Feeling that our program is their second home, many of our students visit us years after they have finished. It is a place where they were given the chance to rediscover themselves as they learned to read. As one of my students told me, "You taught me that I can have whatever I want in life if I want it and plan for it. I will never forget this."

What Silent Reading Tests Alone Can't Tell You:

Two Case Studies in Adult Reading Differences

by John Strucker

Before joining NCSALL last fall as a researcher, I worked as a reading teacher in adult basic education (ABE) for 11 years at the Community Learning Center in Cambridge, MA. When I began in 1985, our center relied primarily on "quick and dirty" silent reading tests to place students in class.

Over the years, however, my colleagues and I began to realize that screening, multi-component reading assessment would provide more useful diagnostic and teaching information than silent reading comprehension tests alone. In addition to silent reading, we began doing word analysis (phonics), word recognition, spelling, oral reading, and oral vocabulary assessments with all learners who scored below grade equivalent (GE) 8 on our old test and with any learner reporting a history of serious childhood reading problems. As we began to use multi-component testing, we noticed that most of our adult basic education (ABE) readers presented very mixed, uneven patterns of strengths and needs across the various components of reading. Some of their reading skills were fairly well developed, but often many important skills were not.

We also began to notice recurring patterns of strengths and needs, and we began to identify typical reader profiles. At the Harvard Adult Literacy Initiative, Professor Jeanne S. Chall had also begun to identify and describe distinctive patterns of strengths and needs among the ABE learners served in her adult reading laboratory (Chall, 1991).

My subsequent research (Strucker, 1995; see the box on page 14) confirmed this: Unlike normally progressing young readers, who, by definition, have relatively even reading profiles — e.g., an "average" fourth grader usually has approximately fourth grade skills across the components of reading — ABE readers tend to have very uneven reading profiles. To put it another way, as Chall (1991) noted, many ABE readers' profiles resembled those of children who have been diagnosed with reading difficulties.

Why are there so many uneven profiles in ABE? This is a complicated question, but let me suggest a few reasons. Most of our native speakers — up to 70%, according to my preliminary research — report they had serious reading problems when they were children. Therefore, their reading profiles may have begun to develop unevenly in childhood and remained uneven into adulthood. Second language speakers in ABE classes generally have acceptable print skills, but usually they have not developed commensurate vocabulary levels in English. Moreover, some may not have had sufficient native language education to have developed these concepts in their native languages.

Why is the "unevenness" of ABE readers' profiles important? Let's back up for a moment to talk about the reading process. The "print aspects" of reading, like word recognition, and the "meaning aspects" of reading, like comprehension and vocabulary, are thought to support each other interactively (Adams, M.J., 1994). But the converse is also true: significant difficulties in one or more components not only hinder one's current reading, they may also impede future progress, for adults or children (Curtis, M.E., in press; Roswell & Chall, 1994). For example, if word recognition is slow and inaccurate, the effortless processing of text that enables comprehension to take place may be impaired, despite a reader's background knowledge, vocabulary, and analytic ability (Perfetti, 1985).

Below, I present case studies of two typical adult learners to illustrate what this notion of "uneven reading profiles" can mean in concrete terms. Both students scored an identical grade equivalent (GE) 4 in silent reading. But, they are very different readers, with very different instructional needs. Their stories highlight two important issues: the value of thorough diagnostic testing that goes beyond silent reading comprehension, and the value of a wider variety of classroom placements than many ABE centers are currently able to offer.

"Richard"

Born in a city near Boston, Richard was 24 when I met him. He enrolled in our center to earn a high school degree in order to enlist in the military. His K-12 schooling featured many interruptions because his family moved frequently during his childhood. "I was never in kindergarten at all and during first, second, and third grade we moved all the time. Teachers didn't really deal with my reading problems because by the time they noticed them, we had moved. ... I'm still very hurt to this day. ... If I'd had an education, I could have done anything."

Richard's teachers eventually did notice his reading problems, and he was placed in special education classes from middle school on. In high school he was a popular, outgoing student, earning varsity letters in football and basketball. Because he was bright and well-spoken, his friends assumed he would go on to college, perhaps even with an athletic scholarship. In reality, however, Richard's reading had remained stalled at primary school levels.

In the middle of his junior year, his

Patterns of Adult Reading

In *Patterns of Reading in ABE* (1995), John Strucker tested and interviewed a sample of 120 ABE readers designed to resemble the learners in the Massachusetts ABE system as a whole. Students were tested with the Diagnostic Assessments of Reading (DAR). The 120 DAR component profile scores were subjected to computer cluster analysis. Nine instructionally- meaningful clusters of ABE learners emerged, ranging from beginners all the way up to those at GED levels.

Here are some of Strucker's findings in brief.

- The ABE readers were quite diverse, especially at intermediate levels (GE 4 - 7), with five distinct clusters identified.
- Most learners had relatively "uneven" profiles of strengths and needs, with only about five percent of the learners displaying the relatively "even" profiles associated with normally developing young readers.
- Native speakers tended to have relatively stronger "meaning-based skills" as compared to "print-based skills," while non-native speakers exhibited the opposite pattern. Chall (1991) reported similar findings.
- The number of native speakers with reading difficulties in childhood was surprisingly high. Seventy eight percent reported formal recognition of their problems by school authorities and subsequent placement in either remedial reading or learning disabilities classes.
- Many native speakers at all levels tended to have difficulty with oral reading fluency, even below their eventual levels of mastery, suggesting that they were having difficulty processing text efficiently and effortlessly.
- Many second-language speakers in ABE classes had surprisingly low levels of oral vocabulary in English (GE 2 to GE 4), despite their fluent levels of conversational English. Similarly low levels of oral vocabulary occurred among some inner-city young adults who were native speakers. ❖

Word Analysis	Word Recog	Spelling	Oral Reading	Comprehension	Oral Vocab.
GE 1.5*	GE 2	GE 1	GE 4	GE 4	GE 6

*G.E. = the highest comprehension score possible for word analysis

mother moved the family to Florida. Richard re-enrolled in school there, but he began to work long hours after school to help support the family. He soon dropped out to take on a 40-hour-per-week schedule in a fast food restaurant. A year later, he returned to the Boston area. He has worked in a number of jobs since then, including security guard, restaurant worker and cook, and clothing salesman.

Above are his intake scores on the Diagnostic Assessment of Reading (DAR) (Roswell & Chall, 1992). Richard's grade equivalent (GE) scores should not automatically be interpreted to mean that he is "identical to a first-grader in word analysis" or "identical to a sixth-grader" in oral vocabulary. The miscue patterns of an adult such as Richard and those of a child can often be very different. In vocabulary, for example, Richard probably knows many words, learned through his work experience, that a sixth grader might not know, while a sixth grader might know many school-based words that Richard may have had trouble reading as a child. This doesn't mean that grade equivalents are meaningless. If analyzed together, GEs can serve to indicate areas of relative strength and weakness. Notice, for example, that Richard's "print skills" — word analysis, word recognition, and spelling — were much weaker than his "meaning related skills" — oral reading, comprehension, and oral vocabulary.

Looking within each test tells us more. My test notes reveal that Richard's word analysis skills were spotty and uncertain: he was able to produce all of the consonant sounds, but many only with great difficulty and some in a distorted, guttural form. He was unable to isolate short vowel sounds and unable to read unfamiliar short vowel words, silent -*e*, double vowel, and r-controlled vowel words accurately. Richard's spelling miscues paralleled his word analysis errors: a few single-vowel words were spelled correctly, but those with double vowels (*tran* for *train*, *chier* for *chair*) were not.

His word recognition miscues involved guesses based on the first few letters of a word and its overall shape, again with much uncertainty about vowels: witch for watch, courage for carriage, nicest for notice. Several times during testing I reminded Richard to take his time, but he persisted in attempting to read rapidly, even at the sacrifice of accuracy.

Richard's oral reading miscues were similar to those in word recognition: *midnight* for *middle*, *old* for *odd*. He was able to use the context to monitor and self-correct some of his mistakes. His self-corrections did not affect his scored mastery level, but they did slow down his reading and make it appear very labored. Although he mastered GE 4 even his GE 2 oral reading was not fluent; it contained several self-corrections, hesitations, and repetitions.

Silent reading comprehension was an area of relative strength for Richard, but he took more than ten minutes to read and answer four questions on the 100-word GE 4 passage. Oral vocabulary at GE 6 was Richard's strongest skill. Some responses, however, reflected his word analysis and phonological difficulties: for *console* — "When you put something where you can't see it" while others were vague and imprecise: for *environment* — "A place you like." It is important to measure vocabulary orally; written vocabulary tests may conflate vocabulary with word recognition when used with people who have decoding problems.

Richard's silent reading and vocabulary scores taken alone might have led to his placement in an intermediate reading class that would have concentrated on silent reading comprehension, vocabulary, and basic expository writing. Instead, Richard's severe difficulties with decoding and spelling (as shown in the DAR word analysis, word recognition, spelling and oral reading tests) led to his placement in a class which focused on helping students develop reading fluency and accuracy. This class covered the

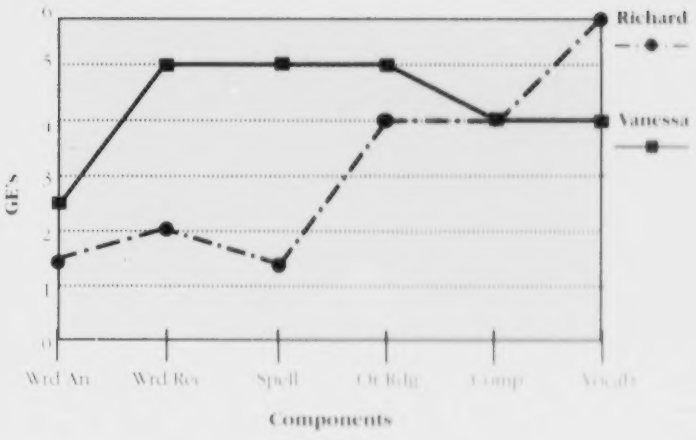
decoding and spelling of double-vowel syllables and polysyllabic words, and it included lots of opportunities for the oral reading of connected texts — especially stories, poems, and plays, which Richard particularly enjoyed.

Even though silent reading comprehension skills were not emphasized in this class, after five months Richard began to score at or above GE 6 in silent reading on the TABE (Test of Adult Basic Education) and ABLE (Adult Basic Learning Exam), if they were not timed. Both the TABE and ABLE were normed on ABE adults. They employ the familiar format of short passages followed by multiple-choice questions. The TABE is timed and the ABLE is not timed. (For more on reading tests, see the box on page 10.) It appeared that his modest progress in the "print aspects" of reading had begun to help Richard unlock his strengths in the "meaning aspects" of reading.

The happy ending to Richard's story has yet to be written. After a year in our center, he began to work two jobs to help support his mother when she became ill. Reluctantly, he had to drop his ABE classes. As in childhood, Richard's education had again been interrupted, but at least he had proved to himself that he could make significant progress.

"Vanessa"

When I met Vanessa, she was 24 and the mother of a three-year-old. She had been referred by the state's welfare-to-work program to brush up her academic skills so she could go on to job training. Born in Lima, Peru, Vanessa remembered knowing how to read before she entered school, "...because my mom showed me." She reported no trouble with reading or any other school subjects throughout her nine years of schooling in Peru. In Lima she even studied "basic English," but, she recalled, "...whatever they taught us there, it was nothing like real English here [in the U.S]." When she was 15, her family moved to Massachusetts, and Vanessa was immediately placed, at her father's insistence, in regular, as opposed to ESOL (English for Speakers of Other Languages) or bilingual, ninth grade classes in an urban high school. "That first year...I got no tutoring or anything. Lucky for me there were other Spanish-speaking kids in the class, from Puerto Rico and the Dominican Republic. They explained things and translated, but that first year I just picked up English by listening to people and watching TV."



The next year, she enrolled in a different high school, where "...I got ESOL classes for three years, and it really helped." At the same time she was taking and passing commercial courses in English, but becoming increasingly bored with school. "I quit when I was a senior, with only three months to go...[because] my boyfriend decided to quit, so I followed. I went to a beauty academy to be a beautician. They got me loans to pay for tuition. But they just think of the money. I finished the course, but I couldn't pass the written licensing test in English. Now I still owe them $9,000! Then I got pregnant with my daughter and couldn't work anymore."

Below is Vanessa's reading profile, based on the same DAR tests administered to Richard. We notice immediately that even though Vanessa and Richard had identical comprehension scores at GE 4, their profiles are nearly the reverse of each other. Vanessa's reading was relatively stronger in the "print aspects" as compared to the "meaning aspects," while Richard's strengths lay in the "meaning aspects" as compared to the "print aspects." The graph (above) of Richard's and Vanessa's reading profiles superimposed on each other shows how different two readers can be—even when they have identical silent reading comprehension scores.

Vanessa's word analysis skills, while somewhat rusty, seemed relatively intact. Her word recognition score almost hit the GE 6 level, with most of her miscues involving the use of Spanish pronunciation rules on English words (favorahblay for favorable and streaking for striking). Her oral reading errors followed this pattern closely. In contrast to Richard, whose oral reading lacked fluency well below mastery level, Vanessa's oral reading remained fluent even above her mastery level. Vanessa's own analysis of her miscues made sense: she explained that since leaving high school she had spoken mostly Spanish at home, watched Spanish-language TV, and read mostly Spanish newspapers and magazines. Her English reading had suffered for lack of practice.

Vanessa's silent reading comprehension at GE 4 — which she mastered — and GE 5 — which she almost mastered — only took a few minutes, compared to Richard's ten. She lamented that she couldn't use a Spanish-English dictionary. Her oral vocabulary, also at GE 4, suggested that a dictionary might have helped. As the

Word Analysis	Word Recog	Spelling	Oral Reading	Comprehension	Oral Vocab
GE 2.5*	GE 5	GE 5	GE 5	GE 4	GE 4

*GE 2.5 is the highest extrapolated score possible for word analysis.

English words on the test got harder. Vanessa's definitions grew vaguer, even when they were counted as correct: *environment* — "What's going on in the world, like smoke."

Vanessa's profile led us to place her in a different class from Richard. She was enrolled in an intermediate reading class which concentrated on advanced decoding skills, writing, vocabulary, and silent reading comprehension. In addition to this class, Vanessa and other non-native speakers of English received one class per week taught by an ESOL (English for Speakers of Other Languages) specialist. This class focused on the specific needs of people like Vanessa. These learners are fluent speakers of English, but they often need special instruction in the vocabulary and syntax of written English — e.g., uses of signal words like therefore, despite, however, although — and in how to transfer metalinguistic knowledge acquired in their native language to English — e.g., that the English suffixes *-tion*, *-ed* and *-ly* correspond to the Spanish suffixes *-ción*, *-ado(a)*, and *-mente*, respectively.

Vanessa's story has a happy ending. She made rapid progress in our center, largely because she was able to regain and enhance her neglected English reading and writing skills. Within five months she had transferred to a combined office skills/GED program, and, following that, to a prestigious secretarial school. Last summer I met Vanessa on the street and learned more good news: she and her boyfriend have married, they have a second child, and he has landed a good job with benefits. And, with obvious pride, Vanessa reported that she has used her combined Spanish and English literacy skills to obtain her "dream job" as a bilingual medical secretary.

In Conclusion

These brief case studies highlight a number of inter-related points for ABE teachers, administrators, and policy makers to consider.

Given that ABE readers are so diverse and their profiles are so uneven, shouldn't sensitive, multi-component diagnostic testing be done with all learners? This testing does not need to be time-consuming, expensive, or burdensome for the learners. The DAR, for example, takes about 40 minutes to administer, and most teachers can learn to use it with just a few hours of training. Most students enjoy the one-on-one attention and instant feedback which tests like the DAR provide.

Does our current array of classes allow us to offer very different readers, like Richard and Vanessa, the different kinds of help they need? Like other ABE teachers, I have struggled to teach learners with very widely divergent needs in the same class. It can be done if the teacher recognizes who those learners are and what their needs are, but it entails a terrible sacrifice of their limited and precious instructional time. To put it another way, attempting to teach "Richards" and "Vanessas" at the same time involves cutting in half the instructional time available to each type of learner.

What can we do about this situation? More money to offer a wider range of classes would certainly help. But we may want to explore some organizational changes as well. In urban and suburban areas, small programs might consider merging to create larger, more versatile centers. Or, they might consider a division of responsibilities in which each small center might specialize in a certain level/type of learner, and then refer readers of other types and levels to cooperating centers which specialized in teaching those learners.

Richard and Vanessa represent only two typical ABE reading profiles, but there may be as many as ten to 12 instructionally-relevant reading profiles in the ABE learner population as a whole. And we know even less about

Tests of Reading

The Diagnostic Assessment of Reading (DAR) measures word analysis (phonics), **word recognition** (graded word lists), **spelling, oral reading** (graded short passages), **comprehension** (short graded passages **followed by** questions and an oral summary) **and oral vocabulary**. It is **administered one-on-one** with ample opportunity **for feedback** and discussion with the learner. **It is criterion-referenced** in that **learners are given opportunities to master increasingly harder material** until they reach **their highest mastery level**. The DAR reading **comprehension tests are** not timed.

The DAR is very "user-friendly" for teachers **and students** because of its clear directions **and convenient** format. Teachers can measure **the same** components of reading using other batteries, such as the *Woodcock-Johnson Language Proficiency Battery Revised* (Riverside, 1990). Or, they can assemble their own diagnostic batteries from tests they already own; e.g., using the **Wide Range Achievement Test (WRAT)** for word recognition and spelling, the **Gray Oral Reading Test** for oral reading, a standardized silent reading test like the **TABE, ABLE, or Nelson** for comprehension, and an oral vocabulary measure such as the **ABLE 1, or the Peabody Picture Vocabulary Test**. See Chall, J.S. & Curtis, M.E. (1990) and Roswell, F. and Chall, J.S. (1994) for more on diagnostic achievement testing in reading.

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The ESOL Adult and the Push Towards Meaning

by Judith Rance-Roney

Omar, a young immigrant from rural Venezuela, sat dejectedly in the tiny corner we called a lab, hands wrapped around his thin cheeks, head bowing over a reading passage assigned by his teacher. "I don't understand. I can't do the worksheet." He was attempting to read a passage about an Appalachian family living in an abandoned bus. "I don't understand these words; this story says that these people are living in a bus. I don't understand. People don't live in buses."

Our adult English for Speakers of Other Languages (ESOL) readers come in all varieties: they are adolescent and elderly, educated and missing key years of education, motivated by survival and motivated by the need to get ahead. Yet they share characteristics as ESOL adult readers. ESOL readers approach the reading task in ways that are far different from those taken by native readers. We must attend to these differences if we are to be effective in our instruction.

- **Schema of cultural experience**

According to Kenneth Goodman's Transactional Sociopsycholinguistic Model of Reading, effective readers employ the minimum number of written cues to comprehend the printed page. Thus, much of what we understand from the passage is unstated, but we understand it because of all we have learned as members of a culture, and because, as native users, we grasp the subtleties of our language. ESOL readers usually do not have the same network of experiences and learning — the schema — to make those leaps of faith, the leaps that occur in the unstated elements of the passage. In fact, ESOL readers may possess cultural concepts that contradict the truth of the reading passage.

Omar, reasonably, expected the passage to make sense. He had learned that bus, people, and driving should occur together. Being a recent immigrant in this land of opportunity, the thought of a family living in a broken down bus had no validity for Omar. The context of Appalachia meant nothing to him.

Unlike an ESOL child in the midst of reading a new language, adult readers are faced with not only the English in the textbooks, but also the English of the new workplace, the English of their children's worlds, the English of survival in the community. In effect, adult ESOL readers has several English domains to learn, each with a unique grammar, corpus of specialized vocabulary, and writing style or register. Each context of an adult's life holds an overwhelming challenge to language mastery.

- **Unique goals of the ESOL reader**

Typically in my class, peering over shoulders, I see scribbled translations over nearly every word, grammar notes in margins. And I find this despite having taught the lesson wryly entitled "Using Context for Vocabulary Learning: 'Guess at the words you don't know,' I say, 'and find the main idea.' Yet the

the reading profiles of ESOL learners *first* as reading teachers need to know more about each student we teach, the field as a whole needs to know more about the different types readers who come to our centers. Only then will we be able to match our teaching and class placements to their needs. To that end, my colleagues and I at NCSALL in partnership with practitioners around the country, will be giving basic diagnostic assessments, including the DAR, to a national sample of about 500 learners to create composite portraits of the various kinds of readers we meet in ABE.

These diagnostic portraits of ABE readers can then be used to inform the work of fine-tuning and, where necessary, redesigning our instructional approaches and class placements. But while we're doing this, we can't afford to neglect our traditional commitment to developing curriculum that is relevant, culturally inclusive, and mindful of adult experience and cognitive skills. It's an exciting time for practitioners and researchers in ABE reading, a time when the field will be moving forward on many fronts simultaneously.

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minute I finish the lesson, students busily pore over dictionaries or line up, waiting to ask the meaning of this idiom or that word.

It is natural to assume that readers attempt to decode written language for the purpose of comprehending the author's message. Yet this is not the only purpose for ESOL reading. Until these readers develop the fluency and confidence that is only realized through long exposure to English, these adults possess a second, and sometimes overriding purpose: to incorporate new linguistic data and expand their language base. The higher order of comprehension, main ideas, and inferential skills are sacrificed for mastery of a new language. Adults seem to forget to comprehend; they do not feel secure in their English knowledge to make the subjective judgements necessary to separate the essential from the extraneous. They have difficulty in interacting with the story in a joyful way; rather they are manipulated and controlled by it. Indeed, the discovery of the author's intent will have to wait. They have to survive in this world and they need more words and better grammar to do it.

As teachers, it is essential that we gently move ESOL readers towards meaning making and reading confidence. We can do this by teaching and using material in meaningful contexts — self, family, work, community — at first expanding learners' worlds in an ever widening circle. We can choose materials that are emotionally engaging and personally relevant, motivating readers to discover meaning. We can carefully select texts that embed cultural information, helping the ESOL learners to develop a cultural background sufficient to understand less explicit texts. We can ask adults to write in response to their reading, cementing learned words and meaningful grammar.

And we can flood our students with reading "stuff" — magazines, newspapers, books, whatever. Much of learning to read doesn't happen in the classroom, rather it is learned by reading a lot: developing fluency, cultural schema, the essential language base, and the love of interacting with author and text meaningfully and emotionally.

Reversing Reading Failure In Young Adults

by Mary E. Curtis and Ann Marie Longo

When most people think of Boys Town, they think of Mickey Rooney or Spencer Tracy, or maybe even the phrase, "He ain't heavy, Father, he's m' brother." They might wonder if it still exists. It does, and today Boys Town is the home of a reading center that is part of the National Resource and Training Center. A laboratory for older adolescents with reading problems, the goals of the Reading Center are to develop research-based programs that prove effective in Boys Town's schools and to disseminate them to other schools around the country. Toward these goals, the Reading Center has developed the Boys Town Reading Curriculum. Our purpose in this article is to describe that curriculum, along with the research and experiences that led us to design it the way we did.

Although boys and girls typically come to Boys Town two to three years behind in reading, some are as far as five to six years below grade level. We needed a curriculum that would help students at several different points along a continuum of reading development. We also needed a curriculum that would give us huge results in a relatively short period of time, the average length of stay for Boys Town youth, placed mostly through courts and social service agencies, is 18 to 22 months.

Prior to coming to Boys Town, we both had worked in the Harvard Reading Laboratory with students who ranged in age from seven to 50 years old. Based on our experiences, we knew our curriculum needed to incorporate the principles that we had found successful in our one-on-one work in the Lab (Chall & Curtis, 1987). We knew that instruction had to have a developmental framework, that students' strengths had to be used to build on their needs, and that learning had to take place in stages. Unlike the lab, we wanted group instruction rather than one-on-one. We also knew that our teaching materials and techniques would need to appeal to our audience of young adults. We will discuss each of these elements in detail.

A Developmental Framework

We knew that our students' skills in reading were not going to be acquired overnight; they would develop gradually. Jeanne Chall's stages of reading development (1990, 1983) was the theory that helped us the most in recognizing how we as teachers could best accelerate this growth (see box on page 20).

According to Chall, reading is a process that changes as the reader becomes more able and proficient. She suggests that, in the beginning stages of learning to read, students learn how to recognize and sound out words — the basics of the alphabetic principle. With practice, their reading becomes more fluent and automatic, increasing their ease in dealing with texts that use concepts and themes already within their experiences. At this point, students have learned how to read. The challenge they face next is acquiring the ability to use reading as a tool for learning. This involves working with texts that go

beyond what they already know, thereby increasing their vocabulary as well as their ability to think critically about what they read.

Build on Strengths

The content of each of the four courses in our curriculum is designed specifically to reflect students' current level of reading development, along with the level to which they need to go next. In each course, we try to make sure that we are building on strengths. Take Mark, for example. He was 16 years old when he began the program. Although he had difficulty reading text above the third grade level, his vocabulary knowledge and listening comprehension skills were at about the seventh to eighth grade levels. Mark was placed in the first course in our curriculum, where students' strength in understanding is used to address their need in decoding. Although he struggled when he was asked to read, we interested Mark enough in the content of what he was reading to make that struggle worth while. Later, when we asked him what he would say to other students entering the program, Mark said, "No matter how hard the work is, just stick with it. People making me read made me read better because I got used to reading."

Proceed in Stages

In each of our courses, we strive to use a three-step process when introducing new concepts and skills. First, we demonstrate or model the new material. Next, we give students an opportunity to practice, with the teacher as a guide. The third step involves independent practice with feedback.

For example, to promote understanding of the alphabetic principle, we teach the concept of a syllable and then model how words can be broken into these parts. Following that, students use computer software to practice the reading and spelling of words divided into syllables. Finally, students are provided with independent practice via a cloze task, with syllables. On cloze tasks, portions of words or sentences are omitted, and learners must try to fill in the "blanks."

We use this same strategy when working on increasing students' knowledge of word meanings. We use direct instruction to introduce definitions and examples of different contexts in which words can be used. We then give students activities like games and puzzles to engage them in discussions that provide supported practice. Finally, students practice independently when they incorporate the vocabulary words in written responses to short readings.

Since our goal was to develop a reading curriculum that could be disseminated nationwide, we needed to keep costs in mind. One to one tutoring is way too expensive for high schools. So, we knew from the outset that we had to get results with groups. We had another reason for wanting to work with groups. For the young adult with reading difficulties, inappropriate classroom behaviors often contributed to academic failure. By working in groups, our kids would also have opportunities to practice the social skills that are so critical to their future success (Connolly, Dowd, Criste, Nelson, & Tobias, 1985).

We designed our curriculum specifically for the older adolescent. Although the characteristics of effective reading instruction are the same, regardless of the learner's age, the specific techniques and materials used must be age appropriate. For instance, when working with young children, it's fine to teach the "ou" sound with words like *loud* and *cout*. But when working with older adolescents, who can often read words like this on sight, such an approach can turn them off. In selecting our materials and techniques, we paid particular attention to ensuring that they would be appealing to young adults. When we teach the "ou" sound, we use words like *cockroach* and *scapegoat*.

Four Courses

Each of the four courses in our curriculum lasts about 10 weeks. In each course, students meet for about 45 minutes a day, five days a week. This amounts to almost four hours of direct reading instruction a week as compared to Adult Basic Education students, who average between 5.5 and 13.0 hours of instruction per week, according to the Department of Education. Our courses are usually taken as electives, allowing students to complete their regular high school program while they are receiving help in reading.

Decisions about where to place students in the curriculum are based on whatever diagnostic data are available. On Boys Town's home campus, we give the Diagnostic Assessments of Reading test (Roswell & Chall, 1992), an individually administered, criterion referenced test (see page 16 for more on the DAR). Other sites we work with use

Boys Town Photo

Boys Town Photo

other kinds of information for placement, including both standardized test data and curriculum-based measures.

Our experiences, both in the Harvard Reading Lab and in working with the Boys Town Reading Curriculum, convinced us that an accurate diagnostic picture of the students is one of the key ingredients for accelerating their growth in reading. Another key ingredient is ensuring that instruction is focused clearly on the components most critical for growth at each level of reading development. In the sections that follow, we talk about how each of our courses has been designed to accomplish this.

Foundations of Reading

Foundations, the course for young adults reading below the fourth grade level, maps onto Chall's Stage 1 of reading development. Our goals in this class are to teach the most common letter-sound correspondences, and to provide opportunities to apply this knowledge while reading books aloud. About ten students make up a Foundations class, along with a teacher and, when available, a paraprofessional. For about ten minutes each day, students work in pairs on spelling software (*Spell It, 1*, by Davidson) which we have customized to teach up to 17 different phonics rules. Groups of students also spend about ten minutes each day playing a game with words that fit the rule they are working on, like *Concentration* or *Wheel of Fortune* (see also Curtis & McCart, 1992). Students learn very quickly that time is limited, and they know the more they are on-task, the more fun they will have.

The remainder of class each day is spent in a small group, four or five students with a teacher, reading aloud from a novel. Novels are at a high enough level to provide practice in applying the phonics rules being learned, and interesting enough to make the effort it takes to do so worthwhile. Novels we've used include *Whispers From the Dead* by Joan Lowery Nixon and *Toning the Sweep* by Angela Johnson. The reading is done collaboratively, with students and teacher taking turns reading and passing back and forth at unexpected times. This technique requires everyone to follow along and to stay engaged. The teacher supplies unknown words when necessary, while at the same time encouraging students to identify unfamiliar words. Informal discussions about the novels help to maintain comprehension and interest. Homework includes finding words that do and do not fit rules, and sentence writing.

Adventures in Reading

Adventures, the course that corresponds to Chall's Stage 2 of reading development, is intended for those reading between the fourth and sixth grade levels. The goals in this course are to improve students' ability to recognize words and their meanings, and to increase oral reading fluency. As in Foundations, students work in pairs for about ten minutes each day, on computer software customized to improve their reading vocabulary (*Word Attack 3*, by Davidson). They spend about ten minutes each day in small groups playing games that provide practice with the words, like *Password* and *Jeopardy*.

Oral reading is part of Adventures for the same reason we use it in Foundations: students need informed practice as they learn to read. We use the same procedure for oral reading in this class as in Foundations, and the emphasis continues to be on application and enjoyment during reading. In Adventures, however, fluency rather than accuracy is the focus. Novels we've used to promote these goals include *Something Upstairs* by Avi and *Flight #116 is Down* by Caroline B. Cooney. Homework includes crossword puzzles, cloze

Chall's Stages of Reading

Stage	Characteristics
Stage 0 Pre-reading	Story can be retold while looking at book previously read; letters of alphabet named; name can be written; some signs can be recognized.
Stage 1 Decoding	Relationships between letters and sounds and between printed and spoken words are being learned; simple text with predictable words can be recognized.
Stage 2 Confirmation	Stories and short selections are read with increasing fluency; reading from context is taking place.
Stage 3 Reading to Learn	Reading is used to learn new information, new ideas, new words and concepts.
Stage 4 Multiple Views/Depth	Wide reading from a broad range of complex materials is occurring; a wide variety of perspectives and attitudes are being experienced.
Stage 5 Construction	Reading is very rapid and effortful; reading is used for personal and professional needs.

sentences, and analogies — all providing additional practice on the same words used in the computer software and the games.

Mastery of Meaning

Mastery, which relates to Chall's Stage 3 of reading development, is designed for those between the sixth and eighth grade levels. The goal in Mastery is to build up knowledge of word meanings to improve comprehension. The classes run anywhere from ten to 15 students per teacher.

The design of the activities and materials in Mastery are based on five principles of effective vocabulary instruction drawn from the research literature (McKeown & Curtis, 1987): (1) students get numerous opportunities to learn a word's meaning; (2) words are presented in a variety of contexts; (3) students are asked to process words in active, generative ways; (4) distinctions as well as similarities among words' meanings are stressed; and (5) improvement in students' ability to use words in speaking and writing, as well as to recognize their meanings, is emphasized.

Students read mostly informational text, including articles from materials like *Disasters and Heroes*, Jamestown Publishers, and *The Kim Marshall Series Reading*, Educators Publishing Service. Because students are now making the transition from "learning to read" to "reading to learn," much of the reading is done silently. Homework includes writing assignments using target vocabulary words, along with cloze passages and sentence completions.

Explorations

The final course in the curriculum is designed to correspond to Chall's fourth stage of reading development. Intended for those reading at the eighth grade level and beyond, the goal in Explorations is to promote the ability to integrate information, via both reading and writing. Students learn study skills like note taking and summarizing in the context of materials taken from a variety of content areas. *Strategies for Reading Nonfiction* by Sandra Simons, published by Spring Street Press, is a resource that we use frequently. Students practice using study skills when they work on problem-solving software (*Where in Time Is Carmen Sandiego*, Broderbund). Use of study skills is also required on an activity we call the Explorations Board, where they respond in writing to short-answer and essay questions. Homework provides additional practice in using reading and writing as tools for learning.

Assessing Effectiveness

We use curriculum-based information, data from norm-referenced tests, and consumer data to assess the effectiveness of the program. In the first three courses, students take weekly pre- and post-tests on the content being taught, and feedback on weekly writing assignments is provided via rubrics. Explorations students get weekly updates on their progress.

Results from curriculum-based measures have been quite encouraging. For instance, by the end of Mastery students can use nearly 75% of their words correctly in writing, as compared to 45% before the course begins. The curriculum-based measures have also helped us to see which students may need some additional help or additional challenge. Students appreciate data like these as well. Even when they get less than 100% on their post-tests, they can see improvements from their pre-tests, and this keeps them motivated.

We use norm-referenced tests for evaluation because results from national samples, as well as results from the various sites we work with, provide benchmarks for gauging how much reading growth students are making. We picked the tests to correspond to the components addressed in each course. For example, in Foundations and Adventures, we have given students the basic reading and vocabulary subtests of the Woodcock-Johnson, Revised (Woodcock & Johnson, 1989). Average gains after 30 weeks of instruction have been more than two grade levels. In Mastery and Explorations, students take the vocabulary and comprehension subtests of the Stanford Diagnostic Reading Test (Karlsen & Gardner, 1995). Gains on these measures average one year for every semester of instruction.

At the end of every course, we ask our students (our "consumers") ques-

Creating an Effective Reading Program

Although the content of this curriculum was designed specifically to appeal to older adolescents (15-20 years old), we believe that the following factors make the program successful and can do the same for any ABE program.

Instruction is based on theory and research: A curriculum must have a strong foundation in theory and research. When students are continuously engaged in tasks that are at the appropriate level of reading development, accelerated growth will be the result.

Instruction is structured and planned: For anyone who has failed in school, an environment that is clear, consistent, and encourages risk-taking is crucial. When learners know ahead of time what they will be asked to do, and that help will be available when they need it, they feel safe and in control.

Teachers are trained: Teacher training and consultation are essential ingredients for a successful program. Teachers need to understand the rationales behind curricula, the goals and principles of what they are teaching, and the reading profiles of their students. They must also be able to ask questions, seek advice, and receive feedback once instruction has begun.

Classroom atmosphere is positive: A program needs to make sense to students and provide them with hope. They need to know why they have been placed in a particular class, and more importantly, what they will be able to do when they get out.

Students are challenged: Teachers and students alike need to define success both by how much is learned as well as by how well tasks get performed. When success is measured by how much is learned, students are willing to be continually challenged. As challenge results in growth, motivation will increase. ◆

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tions about the class activities, materials, assignments, and so on. Responses are always positive. Particularly revealing is the question that asks kids what advice they would give others who are just starting the program. "It helped improve my learning and spelling abilities." "Take advantage of the opportunity to learn to do your work." "I liked the classes and the computers are fun. Most of all I liked the games we played and I didn't even mind reading so much."

Concluding Remarks

Concern about illiteracy abounds; yet solutions are difficult to find. Indeed, in many circles, reading failure in older adolescents and adults is viewed as failure too late to overcome. The Boys Town Reading Curriculum has successfully reversed reading failure in young adults. This success would not have been possible without the cooperation and help of the teachers and students for whom the curriculum is designed. This is what really makes the curriculum work. It was developed *in vivo* rather than *in vitro*, keeping us continually aware of the needs of the teachers and the students we were seeking to help. To them we owe a special thanks. ❖

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Reconceptualizing Roles: Mathematics and Reading

by Mary Jane Schmitt

When I first started teaching mathematics to adults in basic education programs, about 25 years ago, I believed in and used individualized assessment, instruction, and — to the extent possible — curriculum. I diagnosed the computational gaps, took into account the adult's long term goals, made a plan to fill in those gaps, and then the student and I set upon the task of making it happen. It was called diagnostic or prescriptive teaching, and it seemed a great deal more learner centered and efficient than a brush up or a review course where everyone was expected to be on the same page at the same time. The thinking was that no one would ever be "left behind" or lost again because everyone could learn at his or her own pace.

Learners didn't talk much to each other in those early classes of mine. It was a two-way teacher-learner dialogue. The mathematical content emphasis was largely computation and workbook driven. The word problems at the end of each chapter provided students with a way to practice the computational algorithms just covered.

Another notion I had was that I was a math teacher, not a reading teacher. Rather than take on the responsibility of helping students improve their reading, I skirted the reading issue by controlling the reading level of the word problems. I had a slew of workbooks, and I dealt with different reading levels by using word problems that matched a student's reading level. I audio-taped problem sets for beginning readers.

Emerging Trends

Today, while I am no longer a classroom teacher, I work closely with adult basic education (ABE) and K-12 mathematics teachers, and what I see emerging are some significant and positive trends. The first is that the definition of the mathematics essential for adults is expanding. A group of ABE teachers in Massachusetts posits that "math is more than computation. It is a set of concepts, principles, and relationships which serves as a powerful symbol system and tool for describing and analyzing our world." They and several other state and local ABE math teacher teams are working to adapt the NCTM Curriculum and Evaluation Standards for School Mathematics (National Council of Teachers of Mathematics, 1989) to the ABE classroom. As a result, there seems to be more variety within mathematics curricula. Adults are not just learning how to manipulate numbers; they are also collecting, displaying, and analyzing data; creating and identifying patterns, relations, and functions; developing a stronger sense of number and operation; and exploring spatial and geometric relationships.

Secondly, I am working with teachers who are purposefully emphasizing more realistic and relevant problem-solving situations rather than the controlled one- or two-step word problems. As a result, math students are more engaged in reading, writing, speaking, and listening. When problem situations depend on gathering information from a variety of everyday sources, such as articles and advertisements in newspapers and magazines, prose literacy and mathematical literacy are hard to

separate. Understanding the problem becomes much more complex than knowing a list of key words — "more" means add, "less" means subtract, "of" means times — to solve formulaic word problems.

Finally, what strikes me is that ABE students are talking and writing to each other about mathematics. What I see frequently are cooperative learning groups, which promote mathematical discourse, and assessments with open-response and open-ended items, which require students to explain and defend their thinking. Teachers are also emphasizing the ability to move freely between a variety of ways of describing a mathematical concept, in algebraic symbols, everyday situations, pictorial representations, graphs, tables, and written and oral explanations. "Doing mathematics" requires communication skills that draw not only upon computation, but also on reading, writing, listening, and speaking.

Changing Roles

In all of this, it's interesting to think about the way roles are changing. ABE teachers and learners, faced with new ways of approaching mathematics, have to stretch well beyond business-as-usual because both are learning new skills and are engaged as learners. It isn't easy to write or talk about mathematics when you've never done it before. Most of us — teachers and students — learned to do mathematics as a solitary activity and kept our mathematical thinking to ourselves. The roles of the math and language arts teachers begin to coincide, too. Teachers facilitating a classroom environment where students learn to communicate mathematically are employing techniques such as brainstorming, group story writing, journals, and interviews — the same techniques found in literacy classrooms.

Looking Ahead

For ABE math classes to continue to evolve as communities of competent problem solvers and communicators, it will take the combined skills of literacy and numeracy practitioners. As a first step, I'd like to see a dialogue about integrating language and mathematics skill development, and perhaps the focus of that discussion could start with GED preparation, where mathematics is imbedded in several of the items on the social studies and science tests and where all the mathematics test items are contextualized problems. Or the dialogue could begin around the definitions of mathematical literacy and numeracy and literacy and the importance of each in the adult roles of worker, citizen, and parent. Wherever it starts, the point is the same: mathematics and literacy must proceed together. ❖

A dialogue between the literacy and the numeracy communities is essential. One medium for discussion of this issue is the Numeracy electronic discussion list. To join, send a message to:

majordomo@world.std.com

In the subject line, write: "Subscribe Numeracy." ❖

Mathematics Now

The Massachusetts Adult Basic Education Math Standards (MBAE), developed by a group of ABE math teachers, exemplify the direction mathematics is taking. Here is an excerpt from the Standards:

In the adult basic education classroom, curriculum design must include approaches to teaching mathematics as communication that allow learners to:

- develop appropriate reading, writing, listening, and speaking skills necessary for communicating mathematically in numerous settings;
- discuss with others, reflect and clarify their own thinking about mathematical outcomes, and make convincing arguments and decisions based on these experiences;
- define everyday, work-related or test-related situations using concrete, pictorial, graphical, or algebraic methods;
- appreciate the value of mathematical language and notation in relation to mathematical ideas. ❖

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This issue of *Focus on Basics* is dedicated to the memory and spirit of Lou Setti, 1940-1997, who always reminded us to focus on the basics.

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Focus on Basics

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INSIDE THIS ISSUE

1
Building Community and Skills Through Multilevel Classes
Judy Hofer and Pat Larson

6
Multiple Levels, Multiple Responsibilities
Lenore Balliro

9
The Multilevel Umbrella
Miriam Burt

11
Technology Melts Classroom Walls
Susan K. Cowles

14
A Foundation for Learning Math
Jan Phillips

16
When the 'Multi' is Generational and Cultural
Eileen Barry

18
Multilevel Literacy Planning and Practice
Cathy Shank and Lynda Terrill

23
Focus on Research: NCSALL's Longitudinal Study

Building Community and Skills Through Multilevel Classes

by Judy Hofer and Pat Larson

If your philosophy of literacy includes community building, then working within multilevel classes makes perfect sense. From this perspective, education is about fostering relationships among people, breaking down barriers of separation, and using authentic ways through which people can find common ground and bridge differences. Deliberately-formed multilevel classes are created based on the assumption that all human beings have strengths as well as deficits, that all have something to contribute to enrich the group's learning, and that communities are actually strengthened by the diversity of their members.

At The Literacy Project, a community-based adult education program in Western Massachusetts, we have taught multilevel classes as a way to foster our program's mission of "helping individuals and groups to make changes and engage in actions to improve the quality of life for themselves and the community as a whole." We hope that working collaboratively across their

continued on page 3

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Focus on Basics is the quarterly publication of the National Center for the Study of Adult Learning and Literacy. It presents best practices, current research on adult learning and literacy, and how research is used by adult basic education teachers, counselors, program administrators, and policy makers. *Focus on Basics* is dedicated to connecting research with practice; to connecting teachers with research and researchers with the reality of the classroom; and by doing so, making adult basic education research more relevant to the field.

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NCSALL

National Center for the Study of Adult Learning and Literacy

Welcome to *Focus on Basics*

Dear Readers,

In this issue we address the question of multilevel classes. Endemic to the field of adult basic education, some teachers thrive on the multilevelness of their classes, others struggle with it. Writers from around the country share their perspectives, hoping to give you insight valuable to your daily work.

It is with this issue that our editorial board of two teachers, an administrator and teacher, a staff developer, a researcher, and a writer admitted that *Focus on Basics* grapples with the issue of a multilevel readership. You are teachers, administrators, counselors, policymakers, staff developers, and researchers. You are new and experienced, have recently switched from adult basic education to English for Speakers of Other Languages or vice versa. Some of you teach math, others reading and writing, some use technology, some don't. Some work in one-on-one programs, others in settings that use classroom-based instruction. Some see this field as your career, others make adult basic education a second career or volunteer as part of your community involvement. Your work in public school buildings, in prisons and community corrections centers, in workplaces, in community-based organizations, in community colleges, and in churches. The learners you serve are as varied as your settings — young, old, in between, born in the U.S. and in every other country in the world. As we craft articles we hope to be as relevant as possible to as many of you as possible, knowing that we can't meet all our your needs but hoping to challenge you and, in the process, to celebrate your diversity.

One of *Focus on Basics*' goals is to help you become more critical consumers of research. Towards this end, in this issue we launch *Focus on Research*. Via this column, we hope to bring to life the work of the National Center for the Study of Adult Learning and Literacy (NCSALL) by discussing not just research findings and their implications, but work in progress. Each issue, we'll highlight a different project, sharing what it takes to conceive of and initiate a research study, what thorny decisions researchers make as they go along, and what NCSALL and the field of adult learning and literacy hope to learn from the effort. Turn to page 23 for an overview of NCSALL's longitudinal study of adult literacy learners, directed by Steve Reder, Associate Professor of Psychology at Portland State University.

Sincerely,

Barbara Garner

Barbara Garner
Editor

Community

differences in class helps students to work more effectively with all kinds of people in their day to day lives, including neighbors, fellow workers and public officials. Although we always teach classes grouped by skill level and find that a good name for such groupings are commonly elusive, I find it easiest to think people know what it is—the basic day to day reading, writing and math they need.

Multilevel classes make sense to learners if teachers help them to see reading, writing, and math as ways of knowing that knowledge is socially constructed. Knowledge is not a collection of facts to be memorized by people, but is the result of people working together to create meaning and knowledgeable about the world, not only by working on activities and reading and writing on their own, but also by actively engaging with others, talking, discovering, and creating knowledge as it relates to their own experiences and perspectives. Rather than focusing on the one right answer to a technical question, this view of literacy emphasizes learning for understanding, looking at issues from many often contrasting, perspectives is valued. The skills of reading, writing, and math are then woven into this larger context.

How literacy and learning are socially constructed is illustrated in the following example from one of our sites, where a multilevel class of eight women used reading, writing, and discussion to pool their knowledge about welfare reform. The women read a newspaper article and started to organize about the push to get mothers off welfare and into jobs. They discussed the issue and critically reflected on how mothers receiving welfare benefits for their children were being blamed for their poverty. Independent of the teacher, they generated a list of questions which they wrote on the blackboard, including such concerns as: Where are the jobs when mills are closing down? How can women find and keep jobs when there is no public transportation in the area and a car is too expensive to own and operate? How can women work at minimum wages, support their families, and still afford safe child care? They read more about the issue and created a hand out on their concerns about welfare reform legislation. The women distributed this hand out and spoke out at a community forum attended by more than 150 people, including representatives from community agencies, state legislators, and welfare officials.

Getting Started

Getting started can be the most difficult step in getting the multilevel class to work. Our students do not typically say they are learning to school to foster relationships and build community. They talk about wanting to read and write better, pass their GEDs — tests of General Educational Development — and get better jobs. Students come through our doors expecting, not surprisingly, to be tested and assigned by skill level. The novelty of a mixed class is sometimes met with confusion and resistance.

The key to enabling students to become comfortable with and invested in this new way of learning centers on building group identity. We work to foster a spirit of mutual respect and cooperation from the outset. Building connections among participants serves many purposes. These include establishing the safety necessary for learning, creating a climate where students learn with and from each other, breaking down the isolation that many feel upon entering our program, and helping participants identify and act on issues that are central to their lives. To begin weaving a sense of belonging, we encourage a lot of talk in class around who we all are as human beings.

We are also intent on building a structure within the class that allows for an ebb and flow between students coming together to work on a particular activity, project, or issue and moving apart to work individually or in small groups or pairs. Learners may work in small groups or pairs at the same skill level or at different levels with the more advanced students taking on a teaching role and, in so doing, grounding their own learning and developing their leadership skills. During this open study time, we rotate among individuals or groups of

students to offer more one-on-one attention and support and often ask our tutors to provide additional help. Achieving the right balance between group and individual work is crucial to ensuring that the process of building community and building basic skills are not in opposition to one another, but truly complement and enhance each other.

Skill Building

One of our favorite mixed-level classes was an outdoor writing group which met weekly and wrote together at the Quabbin Reservoir watershed, where, more than 60 years ago, five towns had been flooded to provide drinking water for Boston. The area today is full of both

folklore and natural beauty. We wrote in the cemetery that had been moved, we wrote by the old stone walls that can still be found, and we wrote by the oak trees that had survived the floods. Linet (all students' names have been changed) was a member of this group. As a beginning writer, she first felt intimidated and questioned whether she belonged in this group of writers. After several months, she realized that she not only had a lot to learn from the group, but also had a lot to offer. In reflecting on her own growth, she wrote in her journal:

> There are two kinds of people. The ones that go out and read and write. [They] have the ability to handle anything that comes their way. [They are] not afraid to do it. They have the confidence they need. There are also people that stay back in a closet. That can't come out or [are] afraid to. But sometimes we see a little light in the dark. We are looking for more light. When we do, we find it very interesting. We found out that we too, have a very good mind and feelings about things.
>
> I found out there are many intelligent people in the dark closet after all. [They] have the same confidence. We need to come out of that dark closet. The light we see feels so good. We need more of it. It's like being blind and [then] you can see.

Being with more advanced students was critical to Linet's learning in two ways. First, her enthusiasm to write was inspired by the more advanced writers who modeled that writing, regardless of one's proficiency, is often both a joy and a struggle. And second, by seeing that she could contribute to the learning of others, the "smarter" ones included, she slowly came to believe in her own intelligence. The burden of her internalized belief that she was inferior to others was gradually lifted.

Community Building and Problem Solving

We are fascinated with the process by which adult students who often consider themselves deficient, learn from each other and solve problems by bringing their experiences to the table. Mixed classes set the tone for collaborative problem-solving as, by design, they communicate to students that they all have strengths and can learn from one another.

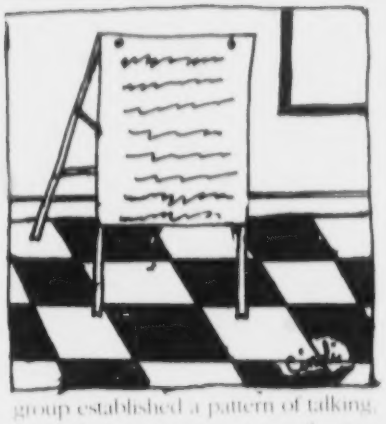
For example, in a class that was examining what it takes to survive, Lucille, a woman with two children, mentioned that she thought she was going to be evicted from her apartment when her partner left, and she could not afford the rent. This personal dilemma prompted other women to talk about housing issues, to read and discuss the high rents listed in the want ads of the local newspaper, to observe the number of vacant and empty buildings in their community, and to share their fears of being homeless with their children. As these women continued this conversation, they encouraged Lucille to talk to her landlord. A few suggested that the landlord might be interested in lowering the rent to let her stay at she was a good tenant. Encouraged by the group, Lucille agreed to talk to the landlord. Later she reported that the landlord agreed to lower her rent so that she and her two children could keep the apartment.

Again and again, we have found that when learners share a problem with the class, discussion, reading and writing are sparked and the students move toward collaborative problem-solving and action. In many of our multilevel classes, students have taken on such projects as building a new class and community space, advocating to get public transportation in the area, publishing community newsletters, and producing a video on domestic violence.

Keeping It Going

Once common interests and issues are identified, where do you go from there? The curriculum emerges from the group. In one group, students, having just read many social studies passages, realized that women's experiences were excluded. The class became very interested in learning more about women in history. We began a multilevel unit on this topic with an easy reading piece and thus included all in the activity. Students then went to the library to find readings on women in history that were based on their own personal interests and skill levels. With all students contributing from what they had read, they collectively created a time line of major accomplishments and struggles of women. In another group, the curriculum evolved around students' desire to plant a community garden. Math lessons were based on creating a budget for this project, drawing a garden plot to scale, and working with perimeters and areas to figure out borders and space available for planting.

The simple use of newsprint may be one of the most effective strategies for working with multilevel groups. For example, one multilevel



group established a pattern of talking, posting ideas on newsprint, reflecting on these ideas, and then adding to them. One student, who initially was unable to write on her own, one day realized that she could. This collective pad of paper seems to help students improve their literacy skills. We want to investigate the "magic of newsprint" further to better understand how and in what ways it systematically promotes such progress.

Grouping by Skill Level

Grouping people by skill levels may be preferable in certain circumstances. Many of our students hold down a number of jobs to make a living and do not have much time or energy. It makes sense for those in this category, who are also close to passing their GEDs, to work together and complete GED review materials so they can pass as quickly as possible. However, we constantly ask them whether getting the GED is their only goal, as we realize that they may also need other skills to help them find their way out of a precarious existence. Since their goals often shift over time, it sometimes makes sense for them to move into a more diverse class, where group work and discussion are central to learning.

Some students may at first feel overwhelmed in a mixed class. These learners sometimes prefer to be with others at a similar level or work with a tutor. Many eventually actually prefer to be part of mixed classes for a block of time, so they can interact and socialize with others.

Conclusion

As adult educators, we try to learn from the experiences students share when they enter our programs. One student visibly shook as she described how, as a child, she was made to ride to school on a separate small red bus that was reserved solely for the slow ones. Many of the other children who rode on the standard yellow bus made fun of her and others like her. Being completely segregated from the "normal" students, she learned to think of herself as stupid and left school as soon as she turned 16. Now in her 30's and back at the adult education center, this woman was filled with anxiety, fearful that she would again be humiliated by being singled out and separated from the others. Based on this and similar stories, we have learned that to track students would replicate the type of power dynamic of "one-ups" and "one-downs" that we are trying to change.

We are concerned that the United States continues to be a segregated society. Communities are divided along class and race lines with whites separate from people of color, rich separate from the poor. Many elderly are in nursing homes, away from children who are in day care. Within the workplaces, management is typically separate from the workers. We ask ourselves, where do we as members of this country have the opportunity to cross these lines and learn to work and interact with one another?

Our belief is that community-based learning centers can be one such place. We want to model how all human beings, when given the chance, may learn from one another and contribute to their community. Mixed classes can be a microcosm of how we wish the world to be: where the diversity of its participants is truly seen as an asset, rather than a deficit.

Our own hope is to move our program even further in the direction of becoming a multilevel organization, meaning that we do not simply offer multilevel classes but throughout our organization students, teachers, administrators, and board members are sharing decision-making and working together to make a positive difference in the communities where we live and work. ❖

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Issue C: September 1997

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Upcoming Issues

December 1997 Thematic Content-Based Instruction

February 1998 Learner Motivation

Multiple Levels, Multiple Responsibilities

by Lenore Balliro

In the 13 or so years I have been involved in adult basic education, no issue has surfaced for classroom teachers as regularly as the multilevel class. Workshops devoted to this topic reliably draw big crowds at conferences and staff development centers; dialogues on national listserves such as TESL-LIT have focused on the topic. Jill Bell's book,* Teaching Multilevel Classes in ESOL, *has proven a perennially popular title in the Adult Literacy Resource Institute library, a statewide adult literacy resource center in Massachusetts where I work as the English for Speakers of Other Languages (ESOL) coordinator.

Often, the issue of "multilevel" surfaces soon after teachers recognize the complex compositions of their classrooms. To successfully engage all the learners in their classes, they are compelled to seek out practical solutions in the form of techniques and classroom management ideas. Even veteran teachers, many of whom could lead their own workshops on the multilevel class, are intent on locating those elusive strategies to address the challenges in their classrooms. New and experienced teachers alike display the same underlying, often implicit assumption: "I, the teacher, am the one responsible for meeting everyone's needs in my class." I want to suggest that teachers simply can not meet everyone's needs in a multilevel class; teachers can approach the issue in constructive ways, however, and employ strategies that help make teaching the multilevel class less mysterious and overwhelming.

The Meaning of Multilevel

In many of the multilevel workshops I have facilitated with teachers over the years, we start our discussions, not with practical strategies, but with perceptions, concerns, and insights about the concept of multilevel. I encourage teachers to "unpack" the concept by reflecting on what we mean when we talk about "multi" and what we should expect of ourselves as classroom teachers when presented with challenging situations because of these differences. A richer understanding of the term multilevel emerges. This kind of discussion, often overlooked in the need for strategies, helps us look more analytically at the concept of multilevel: where do problems emerge and who should take responsibility for them?

Some of the "multis" described in workshop discussions with teachers are not related to "level" at all. These include cultural differences among students and between teachers and students; class differences, again among students in home countries and between teacher and students; age and gender differences; differences in educational backgrounds; differences in motivation; in ethnicity; in first languages; differences in learning styles.

Many of these differences, some teachers reflect, do not present themselves as problems; rather, they enrich the communities of learners and are often the attraction for instructors to stay in this field. In numerous workshops, I have heard teachers discuss how their lives and those of their students are enlarged by their experiences with students from many countries and backgrounds; the "multi" nature of the class makes them continually challenge their own assumptions in a variety of contexts. Looked at through this prism, "multi" becomes a strength rather than a deficit, and teachers often concur that working from strengths is the cornerstone of adult education practice.

Although many teachers acknowledge that a vibrant, diverse classroom provides stimulation and enrichment, they are also quick to admit that it is often difficult to orchestrate a class when it is necessary to teach to many ability levels at the same time. In the ESOL classroom, differences in language and literacy proficiency levels, as well as differences in experiences with education and print, are often profound.

For example, in ESOL classes, students who speak English very well but have limited reading and writing abilities learn alongside beginning speakers of English. This makes it hard to engage everyone in oral language practice. Further, some students may be highly educated in their home countries and are learning to read in English as they learn to speak it; other students may be learning to acquire literacy for the first time. The first languages of some students are alphabetic; others are not. In some ABE classes, a wide range of reading abilities and experiences with print also surfaces. Some students are ready to prepare for the tests of General Educational Development (GED) while others need to build academic skills before they can attempt GED-level work. Some students may do fine with the reading components of GED but are

weak in math. And teachers often need to explain cultural concepts to GED students new to the United States, the same information may bore classmates born in the U.S.

In both ABE and ESOL classes, some students display metacognitive awareness of their learning while others may not know how to step back and reflect on learning-to-learn strategies. In addition, both ABE and ESOL teachers often identify students with learning disabilities in their classes, which further complicates the classroom composition. Teachers have suggested that because of these wide differences in abilities, some students are inevitably bored while others remain lost.

Meeting Needs: the Myth

When pressed, many teachers admit that they try to meet everyone's needs in their classes, all the time, even though they know it is ultimately impossible. It is with this implicit goal in mind that they plan their instructional strategies. Where does this pressing motivation come from? For several years, the prevailing attitude and set of approaches in adult education has stressed learner-centered pedagogy. Teachers are encouraged, and in some cases mandated, to develop an individual education plan (IEP) for the student, articulating each student's personal learning and often job or career goals. Teachers are reminded to assess learners' interests as well as abilities, and to plan instruction to ensure that students' learning goals are met.

Starting from learners' goals and concerns is a good thing. But many teachers have taken learner-centered pedagogy to heart in a way that may contribute to additional stress as they teach the multilevel class. Faced with a multitude of learner differences and seemingly overwhelming needs, teachers feel it is incumbent upon them to make sure each person's needs and goals are met. As mentioned earlier, I do not think this is a realistic expectation. More than one teacher, however, has lamented that "it's just really hard to say NO." In so many cases, teachers care passionately about the lives of their students, for many of whom the system has failed. Teachers are naturally inclined to welcome as many students as possible, to act as advocate, broker, support system. And they encourage students to think that they will get all their needs met. This is a set up: teachers burn out, students get frustrated. Both a great deal of reflection about what one teacher can realistically do and protracted negotiation between teacher and student must take place within a multilevel class to ensure that reasonable expectations are outlined.

Policymakers and Administrators

Though the field of adult education asserts the need for learner-centered pedagogy, enough resources are simply not available to meet the often ambitious agenda inherent in a learner-centered approach. Not enough classes, not enough technological support, not enough teacher aides or tutors, not enough counselors, not enough child care, and not enough well-prepared teachers exist to handle the needs in the field. Examined from this perspective, some of the responsibility to address the complex challenges of multilevel classes rests with policymakers. They must establish realistic expectations about what can be accomplished with the limited resources we do have.

Program administrators also need to take some responsibility for addressing the multilevel issue. Programs might need to reassess, for example, their open-entry open-exit policies. As one adult educator put it, "the class has a right to its own identity." If this identity is continually challenged and disrupted while students enter and exit, it disturbs the equilibrium the class struggles to achieve for optimal learning. Program administrators, in concert with teachers, may need to examine other kinds of grouping rather than proficiency. These might be classes around certain topics, for example, or classes with the same first language. They may have to display courage in setting limits about who can and cannot enter a

particular class. They may need to build a stronger referral structure for students who are unable to access their services. These limits may help in setting more realistic guidelines for the composition of classes. It may be necessary for teachers, once again — loudly and together — to say no before administrators are willing to address these issues on a program design level.

Serving Students Well

Even with the best set of policies, optimum classroom resources, and solid program design, teaching the multilevel class is still a juggling act, one that requires finely honed teaching and classroom management skills. Perhaps we can never fully meet all the needs of all the students in our adult education classes; that doesn't mean that we cannot serve them well. By enlightening policymakers and program administrators to the realities of multilevel teaching, by engaging in a wide variety of staff development activities to improve classroom teaching, and by assisting learners to identify, prioritize, and meet their learning needs, the challenge of the multilevel class may be less daunting. We can strive, as ESOL teacher Annie St. John does, to make students feel safe and challenged at the same time. ❧

About the Author

Terisa Ballin has worked as a teacher, curriculum developer, administrator, and staff developer in adult ESOL for many years. She facilitated staff development for teachers through the Adult Literacy Resource Institute in Boston. In September she will begin editing the Massachusetts adult education newsletter *Bright Ideas*.

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Ideas for a Multilevel Class

Experienced teachers have learned a great deal over the years about making multilevel classes run more smoothly and inclusively. The following suggestions have been distilled from my own classroom experience as well as years of working with other teachers who have helped inform my practice.

Name the Differences: Once a classroom begins to solidify as a learning community, you will find a wide range of differences in the class: skin color, first languages, experiences, education, and so on. By naming and talking openly about the differences in the class, you have a better chance of exploiting the richness inherent in those differences.

Clarify Realistic Goals: By negotiating realistic, shared learning goals with students from the beginning, false expectations are less likely to drive students and teachers crazy. Students' individual learning plans might look strikingly similar to one another as they reflect common goals among the class; however, you may be able to work with each student on one or two articulated goals that are specific to that student alone, especially if you can utilize support staff in the classroom. Once realistic learning goals are established, find ways to check in with students regularly, even if informally, to help them note progress in various areas. With regular assessment, students with a range of abilities can see that they are progressing at their own pace.

Encourage Students to Take Responsibility for Their Own Learning: By assisting students in becoming assertive consumers of their own education, you are providing transferable skills for students to become more active in getting what they need out of a class. Addressing the importance of student responsibility early on in the learning cycle contributes to clearer expectations in teaching and learning — again, taking some pressure off you. A few years back, Andy Nash, then an ESOL teacher in a workplace setting, devised a creative lesson for addressing student responsibility issues. She created an activity where students discussed the following sentence starters:

A good teacher should _____
A good student should _____
Then they translated their statements into ground rules for the class, stating clearly and publicly on newsprint:
We (the students) will _____
The teacher will _____
Many of these ground rules described taking responsibility for homework, participation in class, and other aspects of reinforcing classroom learning.

Weaning Away From Text-Dependent Activities: This is especially helpful for ESOL classes where approaches to teaching do not rely heavily on words. For example, you can try doing science experiments (like planting and growing seeds), cooking in class, or art projects (paper quilts, photo projects, pumpkin carving). This is not to say that the activities avoid language, not at all! But the initial focus on *doing* something, rather than *reading* something, allows the language to emerge from the participants. You can elicit language from the students as well as offer clarification by way of new language. During the activity, everyone can be involved in some fashion, whatever their language abilities. This approach levels the playing field a little. Follow up then involves more structured language practice based on the experiential activity: a multilevel language experience story, or pair work for reading and writing.

Adapt Videos: Choose movies, movie excerpts, TV shows, commercials, soap operas. Select materials with a strong narrative or story and vivid characters so the dialogue does not have to carry the entire meaning and students of varying abilities can still participate in the viewing experience. Humor and slapstick work well, as well as movies that connect to students' own histories. *I Love Lucy* is always a hit. Charlie Chaplin offers silent movies to "flesh out" with language. You can then develop listening, speaking, reading, and writing activities around the viewing segment, depending on what students can handle.

Use a Topic-Driven, Rather Than a Skills-Driven Curriculum: Negotiate with students which themes or topics they would like to see addressed in the curriculum. This way, students can be united around a topic in which they all

share an interest. After initial introductions of lessons, students can branch off according to abilities in various areas.

Use Grids and Other Open Formats: The use of grids, with simple headings, allows you to elicit language from students as a whole class activity and can be adapted to a wide variety of subjects, such as immigration histories of students, job information, families. This approach is especially valuable for ESOL classes. After a grid is filled in with student information, you can then use the information with students of different language abilities, from asking simple *Wh* __ questions to suggesting more detailed writing assignments. Everyone starts out with the same distilled information and it is allowed to expand according to students' abilities in the class.

Create Long-Term Projects: Some teachers help their classes create a simple newsletter that is published every few weeks; others develop video projects. Some create cookbooks or publications of student writings. Long-term projects allow students to assume responsibility for leadership roles and other tasks, depending on strengths and interests. Students can participate in a variety of ways and all contribute to a unified effort with an actual end result.

Teach to Different Groups at Different Times in the Curriculum: You may find it helpful to teach with an emphasis on the more proficient group of students at certain points in the cycle and to the less proficient at other times in the curriculum. Such an approach bypasses the tendency to always teach "to the middle." If you opt for such an approach, it's best to explain to students what you are doing so they do not feel they will be left out entirely.

Allow for a Range of Learning Styles: Sometimes students process their learning silently. Silence does not necessarily indicate boredom, confusion, or passivity. Try to find out what the silence means. It is also helpful to investigate with students how they learn best so you can help students work from strengths.

— by Lenore Balliro

The Multilevel Umbrella

by Miriam Burt

Whenever instructors of English for Speakers of Other Languages (ESOL) for adult learners get together, one topic always comes up: the multilevel adult ESOL classroom. How do you manage the class? How do you meet all learners' needs and get everyone involved? Practitioners call us at the National Clearinghouse for ESL Literacy Education (NCLE) and ask for curricula, activities, techniques — anything they can use in class. The topic appears from time to time on TESLIT-L and NIFL-ESL, the electronic listservs for ESOL practitioners. Discussions flourish as instructors talk about favorite activities to use in classrooms where the Salvadoran construction worker who loves to talk but can't read either Spanish or English sits next to the Korean housewife who loves to do grammar worksheets but can't say a word of English.

Because of the interest in the topic, NCLE staff discussed publishing a digest — a synopsis of research — on it. Feeling that teachers might be looking for a quick fix, we resisted and worked on topics we felt were more clearly definable, more discrete, and hence more easily researched. We published digests on teaching learners with minimal literacy skills, teaching those with learning disabilities, teaching literacy skills in the native language to ESOL learners, considering culture when teaching Southeast Asian refugees, and doing needs assessment in the adult ESOL classroom. We suspected these might be the real issues teachers were grappling with and that they were all factors that went into making a class "multilevel." These digests were well received, but the clamor for the multilevel digest did not cease.

Finally we relented and decided to do the digest. As an adjunct ERIC clearinghouse, one thing we logically do when we have a research question, or need more information on a subject, or are providing information for potential digest authors, is to search the ERIC database. ERIC stands for Educational Resources Information Center, and is a national information system designed to provide users with access to an extensive body of education-related resources. This 30-year-old system is funded under the U.S. Department of Education's Office of Educational Research and Improvement (OERI), and is the world's largest source of education information, containing nearly a million abstracts of documents and journal articles on education research and practice. We searched the ERIC database, requesting documents that address the concepts of multilevel, second language instruction, ESL,

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and adult instruction and found very few articles. None made any reference to research on the issue. Reading the articles on microfiche, I found they were full of references to Jill Bell's *Teaching Multilevel Classes in ESL* (1991) and included descriptions of activities and grouping strategies to use to maximize learner participation. As we had suspected, running like a thread throughout the articles was a description of what makes ESOL classes multilevel. Factors such as diverse literacy levels, learning disabilities, varying expectations of instruction, and differing reasons for being in class were discussed in all the articles.

NCLE published the digest (Shank and Terrill, 1995), describing the factors and discussing grouping strategies. It remains one of NCLE's most requested publications.

And now, two years later, for this article, we did another ERIC search and found only a handful of documents new since 1995. Once again, the documents described grouping strategies to maximize student participation and factors to consider in teaching the multilevel class. No hard, generalizable research was discussed in any article.

No Hard Research

Upon reflection, this lack of hard research on the multilevel classroom is not surprising. This is because 'multilevel classroom' is truly an umbrella term; it is a phrase that covers a multitude of situations. It encompasses the need to deal with issues surrounding literacy, such as how to teach those who have no literacy skills in their native language, those who learned to read in another alphabet, and those who can read scientific generals in English but do not understand a spoken sentence. It includes issues surrounding classroom expectations, such as how to teach those who want to learn in an environment where the teacher is a sort of benign dictator, those who have never been in a classroom before, so have no sense of even what is meant by writing on the board, and those who came up through the U.S. school system and expect a lively give and take in the classroom. It embraces issues surrounding reasons for studying English, such as how to teach those who are there to prepare themselves to pass a citizenship exam, those who want to be able to speak with their children's teachers, those who need to get a job, and those who want to be able to pass an exam that will make them eligible for training or for academic study.

These are just a few of the factors that contribute to the multilevel classroom. Others include learning styles, learning disabilities, pace of learning, class and gender issues, and so on. In any one adult ESOL class any number of these factors can be involved.

So, where does this leave us? Questions still float on the listservs, callers still ask for materials to use with multilevel classes, and practitioners still "exchange recipes" for activities that will reach all the learners in their multilevel classes. Are they looking for the mythical silver bullet? Probably not. It's more likely that the multilevel umbrella, which so describes their classes, also provides one of the best vehicles for talking about instruction, about techniques and activities, about what it is that adult ESOL (and, I suspect, ABE) educators do to help their students learn. And that's all right. ❖

About the Author

Miriam Burt, Associate Director of the National Clearinghouse for ESL Literacy Education at the Center for Applied Linguistics in Washington, DC, has worked in the field of adult ESOL education for more than 20 years. Some of her earlier jobs in ESOL education include directing a federally funded workplace literacy program in Washington, DC, coordinating an adult ESL program in Arlington, Virginia, and training teachers and teacher trainers at a refugee camp for Southeast Asians in the Philippines.

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Bell, J. (1991). *Teaching Multilevel Classes in ESL*. San Diego, CA: Dominie Press.

Shank, C., & Terrill, L. (1995). Teaching Multilevel Adult ESL Classes. ERIC Digest. Washington, DC: National Clearinghouse for ESL Literacy Education. (ERIC Document Reproduction Series No. ED 385 242) ❖

Electronic Resources

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SET TESL-L NOMAIL

The National Clearinghouse for ESL Literacy Education (NCLE) can be reached at
NCLE Center for Applied Linguistics
1118 212nd Street NW
Washington, DC 20037-1214
phone: (202) 429-9292, extension 200, e-mail: ncle@cal.org
http://www.cal.org/ncle [digests can be downloaded here]

Technology Melts Classroom Walls

by Susan K. Cowles

"My kids just gave me a telescope — how can I find out where to look for that new comet?"

"How do 10 women share one shower, one sink, and one toilet in the living quarters at Palmer Station, Antarctica?"

"It says here that the distance from the Sun to Mars is 1.5 AU — what's an AU?"

These questions, asked by Philip, Reyene, and Lizzette, reflect the way adult learners in multilevel literacy programs are using technology. Multilevel classes have learners on a continuum of skills in reading, writing, and math. These learners have multiple interests, varying levels of knowledge about the world, and numerous roles in life. Philip's question reflects an interest that has developed from interaction with his children. Reyene's question about Antarctica was one of a range of questions sent via e-mail to Dr. Polly Penhale, the National Science Foundation Program Manager for Antarctic Biology and Medicine. Learners asked Dr. Penhale about the cost of operating Palmer Station, the weather, atmospheric pollution, scientific investigations, job opportunities with Antarctic support services, the availability of fresh food, her survival training exercises, and the difficulty of living in such confined quarters. Lizzette's question was a specific one about scientific terminology; she was preparing for the GED (General Educational Development) science exam.

By gaining access to Internet-based resources, these students are finding answers to their questions, expanding learning beyond the boundary of the classroom, and using reading, writing, and math skills in real-world settings. These three learners are part of a multilevel Adult Basic Skills class in a welfare reform program at Linn-Benton Community College (LBCC). Thanks to recently-acquired Internet access, supportive technical assistance from LBCC, and a fellowship awarded to me by the National Institute for Literacy, the learners and I have been exploring the uses of Internet-based resources and related technology in multilevel adult literacy curricula. The results have been very informative; as we learn skills in context, dissolve the boundaries of the classroom walls, and use the technology, the 'multilevel class' ceases to be an issue — it just disappears.

Three Observations

Three observations have shaped my approach to teaching in adult literacy classes, which are always multilevel in some sense. These observations are shared by many instructors, based on teaching experience, and supported by research. First, I believe that any skill is learned best when imbedded in content — especially when that content is of interest to the learner and has meaning in the context of that learner's life. For example, by filling out an order form from a mail-order catalog company, a student can learn skills of following written instructions, filling out forms, and doing various math operations. The specific task can be varied to suit the skill levels and interests of the learner: one person might order a single item, like a hat, while another might take on the very challenging task of measuring windows and ordering curtains of the correct size (who among us has not been challenged by that task?).

Second, I believe that learning occurs when it is active, not passive: when the activity encourages action, challenges, and interaction with others, rather than isolated drill in workbooks. For example, an understanding of Newton's Laws of Motion is helpful for those learners studying science and preparing for the GED exam. These Newtonian principles are more easily understood by active participation in a series of experiments with balloons, straws, and fishing line, designed to simulate rockets. When teams of learners experiment with these same "rockets" and payloads (paper clips), this activity is easily translated to the context of actual ongoing space exploration projects. It also provides the opportunity for using a variety of math and writing skills.

> ***"... the multilevel class ceases to be an issue — it just disappears."***

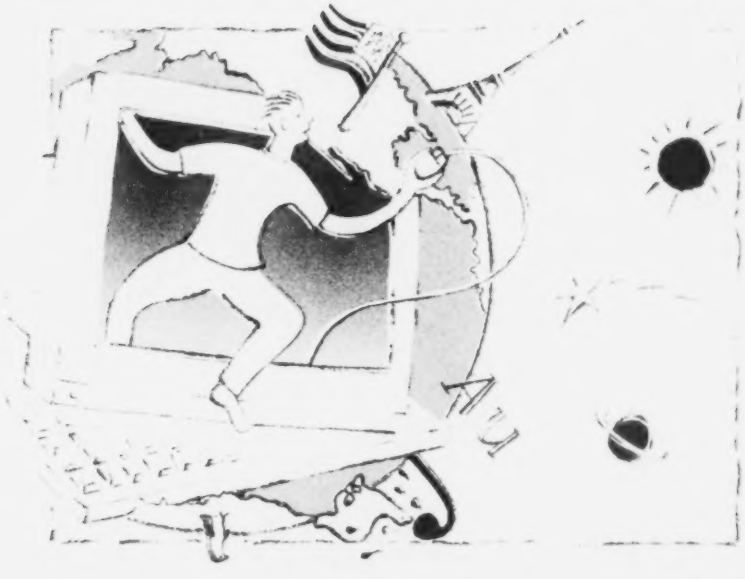
Third, it has been my experience that technology broadens the opportunity for teaching in context and for learning in an active way. I use technology in many forms: calculators, word processing programs, educational software, and Internet-based resources. For the purposes of this article, I'll limit the discussion of technology to the use

of the Internet, because this resource can so quickly allow instructors and learners to take advantage of the moment, to turn the static into the active, and to make meaning out of the vast amount of information available to us.

Participation in electronic field trips is an excellent way to involve multilevel classes in activities using Internet-based technology. These trips epitomize learning in context, using significant, real-world content and a variety of activities. The electronic field trip is also a good starting point for instructors and learners who are new to Internet use. The projects, national and international in scope, usually involve a combination of an Internet website, the use of electronic mail to correspond with experts literally "in the field," live television broadcasts that "teleport" learners to places of interest, print materials, and an electronic discussion conference for instructors involved in the project. The Website contains activities, teacher's guides with background information, links to related sites, and suggested learner activities that can be printed directly from the Website. Print versions of the teachers' guide and learner activities are also usually available. The suggested activities are hands-on, involving reading, writing, math, geography, history, science, and general problem-solving skills. The projects follow the national standards in science, math, and language arts education. The materials are generally written for the middle school skill level, but they are easily adaptable to adult learners. The activities are definitely multilevel.

Two Trips

Learners in our program have participated in two such electronic field trips this year. Both are productions of Passport to Knowledge, supported by the National Science Foundation, the National Atmospheric and Space Administration, and the Public Broadcasting System. I have used each field trip differently to meet learner and program goals. In an electronic trip to Antarctica, *Live from Antarctica 2*, our focus was on communication skills within the context of scientific explorations. Learners worked as individuals within a classroom and as a group, depending upon the task. For example, learners wrote to Dr. Penhale individually, to practice writing skills. However, *teams* of learners used problem-solving strategies and communication skills to determine what to do to survive in a given emergency situation in Antarctica. Because learners enter and exit our class at various times, the same people were not always there for all activities. However, the beauty of the electronic field trip is that investigations can be short or long term, and background information exists for those who have not been in class for all the activities.



In our current trip to Mars, we are concentrating on experiments illustrating scientific principles and the gathering of data from remote sites. By now, most of the world knows about the Mars Pathfinder and its rover, Sojourner. Thanks to *Live from Mars*, it has been possible for learners to participate in the project from its launch date in late 1996, learning physics, technology, math, and aspects of the solar system. We have used activities in the teacher's guide to accomplish this. Once again, the learners worked individually or in groups, depending upon the task. We have six computers in the classroom, so the 20 students work in pairs or take turns when it is necessary to be on-line. Groups of students have done balloon experiments to learn principles of rocketry. Teams also simulated the challenges of landing the Pathfinder on Mars by designing, building, and testing our own "interplanetary landers" with fragile payloads of raw eggs. We've found a context for learning a lot of math and science. Learners also write about everything they do. Learners are participating in this project with the skills and levels of understanding that they bring to the class. Once again, the classroom

"This, to me, is what literacy is all about — access. It is access to information, to enjoyment, to education, and, above all, to opportunity."

walls have melted, this time we've had the chance to be solar system explorers.

Access

This, to me, is what literacy is all about — access. It is access to information, to enjoyment, to education, and, above all, to opportunity. Such access is a goal of adult learners as they participate in literacy programs. However, technology now provides opportunities for adult learners to gain immediate access to information. In this way, the teaching of skills is done in the context and content of interest to specific adults. With Internet-based resources, it is easy to reach students at many levels — to individualize instruction while keeping it in the context of the group and program goals. One student might look at photos of glaciers, penguins, and historic structures in Antarctica. Another might visit the website at the Cambridge University Antarctic Research Center and take its rather technical *Trip through the Ozone Hole* — both students are learning science, practicing reading, and having their experience base expanded. At whatever skill level they currently occupy, they have access to information and the opportunity to learn exciting things.

And as for the questions asked by Philip, Reyene, and Lizzette? Well, using what we know about searching the Internet, we found information about the Hale-Bopp comet long before such information appeared in the popular press. We found photographs taken by amateur and professional astronomers, information about the composition of comets, and diagrams of the comet's apparent journey across our skies. Philip used his telescope, reported back to the group, and encouraged the rest of us to check out the comet. Some of us printed out star charts so we could help our kids find the comet; others got up early to see the comet in the morning skies. By the time the rest of the region was reading about the comet in the newspaper, the learners had become "experts" and had shared their favorite comet websites with the rest of the community college via e-mail.

Reyene used electronic mail to send her question to Dr. Polly Penhale, the National Science Foundation representative at Palmer Station. Dr. Penhale told us: "... the bathroom situation. Well, it is crowded. All of us have to take navy showers. This is a water conservation measure, similar to what navy personnel do on ships. Making water is expensive and time consuming so the idea is to have a two-minute shower. Turn on the water and get wet. Turn off the water and soap up. Turn on the water and rinse off. That tends to get people in and out of the bathroom faster."

And, learning together, Lizzette and I discovered what AU stands for in the context of the solar system. No, it's not an angstrom unit, nor is it the abbreviation for gold. Lizzette and I used a glossary on one of the *Live from Mars* websites. [illegible] that an AU, or astronomical unit, is the mean distance between the Earth and Sun, approximately 150 million kilometers, or 93 million miles. That's a very long distance — we figured that if we traveled at 100 kph (60 mph), it would take more than 177 years to get 1 AU. The distance from Saturn to the sun is 9.5 AU. [illegible] of all the great math problems we could pose with that information.

This year has been an exciting adventure of experimentation with Internet-based resources in the multilevel class. By combining our mutual and varied levels of expertise with computers and websites, we've increased our technological literacy, learned wonderful things, practiced important skills, and had fun in the process. Multilevel? No; multilearning! ✧

About the Author

[illegible] Linn-Benton Community College, Albany, Oregon. She is the northwest regional representative for the Adult Numeracy Practitioners Network, and has been named a Literacy Leader Fellow (1996–1997) by the National Institute for Literacy. Her interests include the mathematics reading process, assessment, the use of technology in teaching and learning, and the use of contextualized basic skills instruction. ✧

Web Sites

Live from Antarctica 2:
http://quest.arc.nasa.gov/antarctica2

Live from Mars:
http://quest.arc.nasa.gov/mars

Schedules/lists of electronic field trips:
http://www.pbs.org/learn/efl

The JASON Project:
http://www.jasonproject.org

A Foundation for Learning Math

by Jan Phillips

Every time I enter my multilevel mathematics classroom, I'm reminded of the truly diverse adult student population that I've encountered during the past 30 years of teaching. In the northwest suburbs of Chicago, at William Rainey Harper College, where I teach, this diversity seems to be increasing exponentially and is infinitely more obvious now than ever before.

It's not my imagination that these present-day students are more diverse. Not only do they have a wide range of math skills and very differing needs, but they have a diversity of character, whether it's age, ethnicity, race, sex, socialization, economics, maturity, mental ability, emotional stability, or any combination of these assorted factors. As a multilevel teacher I have to take all of these factors into account, and take one student from point A to point B to point C at the same time I'm taking another student from point C to point D, and another from point B to point C, and another and another 15 times over. Hey, what's the big deal? Here's how I do it.

Structure

I build a structure that the students can rely on. It may not seem very important, but this structure gives the students a foundation; it gives them a base of operation they can trust. They know what to expect from me and from each other. My classroom structure may not seem to be that innovative, but it is a structure that I use to foster communication, interaction, and verbalization in a mathematical context and to promote the importance of the correct application of math principles and skills in our lives.

My students attend math class one day a week for three hours. The time just flies. During the first 30 to 40 minutes, as they are coming in, learners work individually on computers, following a series of problem-solving programs that I've recommended. I hop from student to student, giving each one individual attention, commenting on his or her progress, listening to family and work experiences, sharing my own personal experiences, emphasizing math skills, looking at homework, and generally getting to know as much as I can about how he or she is progressing in the class. Each student is aware that we are focusing on math, making connections that relate his or her life to what we are studying, and above all, developing a communication process in an mathematical context.

Recently, one student named Isidro received a promotion to head custodian at an exclusive private school. Although he was extremely happy to have this opportunity, he realized that this new responsibility required a new level of math skills, including those needed for purchasing cleaning products, keeping an inventory, and scheduling other employees. In class we spent a considerable amount of time reviewing the necessary math problem-solving skills he would need to be successful at his job. His enthusiasm for learning job-related math skills was contagious. Other students could hear what we were talking about and asked that we continue the topics in our large group segment that followed. Pretty soon the whole class got involved sharing their experiences on the job or in the home and wanted to apply what we were studying to their own lives.

Engagement

Following the individual computer work, we spend a great part of class time building and strengthening student engagement in a large group setting. In this segment students of all levels move their chairs and gather closely as a large group around a board, to discuss a topic — for instance adding, subtracting, multiplying, and dividing decimals. Each student has paper and pencil and a calculator, and whatever notes he or she wishes. After I write a problem on the board, I ask one student to tell us all what the rule is that we should follow to solve the problem. Usually the answer is a combination of several student responses. They all write the rule on their papers. Then I ask another student to put the numbers in a real-life context. For example, the problem might be 12.99 x .08. "Can you imagine doing a problem like this in real life?" With a little coaxing we relate the problem to finding sales tax on a purchase at the mall. Now we calculate the answer, following the rule and using the context to help us put the decimal point in the right place. The students back up their calculations with their calculators and see that they need their understanding of the numbers in context to help them choose the right answer even when they use a calculator. (The answer is 1.0392. In our context, we would choose $1.04 as a reasonable response.) We usually go through all four operations in this manner, so that we can compare and contrast the methods of calculation. For some students this is a review and for others it's all new. I encourage all students to use their resources,

whether that means using a times table, helping each other, or asking for teacher support.

After about 30 minutes, I pass out a sheet of what I call real-life problems and ask them to follow the rules, use their life experience, and solve the problems. Then they compare answers with each other and make changes and corrections as they see fit. Finally, they all have the same answers — or have agreed to disagree — and they check with my answer key to see if I agree. The students count on this time of interaction and communication. By working together, the students overcome their differences, find new associations, develop verbal skills, and understand how they can help each other. They're often surprised how they can enjoy solving math problems even though they sometimes struggle in the process. At this point it's time for a coffee break and it's not unusual to hear them continue their math conversations outside of class.

Skills

After this break the class reassembles and forms small groups to work on particular skills. One group might be working on operations with fractions using a ruler. They draw lines of certain lengths and then add, subtract, multiply, or divide the lines according to instructions. They discuss how to perform the operations visually and then mathematically. Some students say that they have avoided using rulers since they were in elementary school because they were not sure how to read the units or how to manipulate them. This particular activity increases the understanding of fractions and allow students to practice using a measuring instrument. Quite often, this leads to measuring all kinds of things in the room.

A second group could be using the rulers to measure objects and then use ratio and proportion with the measurements to solve problems. For instance, they measure pictures, triangles, distances on maps, and reduce and enlarge them proportionately. We then extend these concepts to a discussion of similarity and how we can use it in problem solving. I encourage all students to use a GED textbook as a reference and source of practice problems pertaining to the topic. In these small groups the students find the math skills to be the bond between them, and while they share feelings of anxiety and frustration they also share strategies for learning and problem solving. They have the opportunity to verbalize their thoughts and processes as they help each other, ask questions, and explain the steps to solve the problems.

My adult math students have challenged and continue to challenge every brilliantly conceived and well-planned teaching strategy that I've devised. Sometimes I ask myself, Where is that teachable moment and more specifically, how do I get there? How do I address their very differing needs and wide range of skills? How do I engage them in meaningful, thought-provoking activities without scaring them away? The National Council of Teachers of Mathematics *Standards*, the Adult Numeracy Practitioners Network *Communities*, and the Massachusetts *Old Math Standards* all agree that communication, participatory problem solving, and connecting number sense to relevant life skills are the keys to success in the study of mathematics. Nowhere is this more true than in an adult education multilevel classroom. By developing a structure that addresses these concepts we are giving our students the foundation they need to build a future that includes confidence in their mathematical abilities. By employing a wide variety of teaching activities and strategies to engage the students, to create an interactive environment, and to encourage them to communicate mathematically, we can soften the effect of differing levels of mathematical abilities and enhance the effect of shared experience.

Last week Ed, a student who failed the GED test on his first try, reminded me that he only needs one more point to pass the GED test. He thought if he just spent a little more time practicing adding and

subtracting fractions he could get that point. I reminded him that the GED test was not a computation test but a problem-solving test and that he and the other students were better served by practicing problem-solving and sharing strategies with each other. So he said, "Now I get what we're doing — we're learning how to figure out the solutions and explain them to other people! Wow! I hope it works."

Well, so do I, Ed; so do I. I'm counting on it. ❖

About the Author

Jan Phillips, Associate Professor of Adult Education at William Rainey Harper College, a community college near Chicago, teaches ABE/GED mathematics full-time. She has been working in the field of adult education for more than 25 years, and is the secretary and a co-founder of the Adult Numeracy Practitioners Network and a member of the National Council of Teachers of Mathematics.

For a list of computer programs, see the Blackboard on page 24. ❖

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When the 'Multi' is Generational and Cultural

by Eileen Barry

Eileen Barry wrote about her bilingual family literacy class and the teacher research she was doing in the first issue of* Focus on Basics. *She grappled with two broad questions: "What happens in an intergenerational setting in which adults and children come together to learn from and with each other?" and "What are the roles of literacy in family education?" In this article, she shares with us some insights about what does happen in an intergenerational setting dedicated to mutual learning. An intergenerational class is, by design, multilevel. Like so many teachers, she found herself struggling with issues that arise because of the multilevel nature of her class.

— Editor

March 12, 1997

Next we met as a group and read a transcribed interview with a Portuguese immigrant who spoke about the prejudice she encountered in the U.S. We talked about how some mainland Portuguese are prejudiced against island Portuguese, and how some Portuguese are prejudiced against Cape Verdeans and Puerto Ricans. The kids talked about how they feel when schoolmates call them "Portugee" and "Greenhorn." Julia said these slurs are sometimes used jokingly, other times they are malicious.

March 19, 1997

I asked if the Portuguese ever make fun of Americans. The group decided that their definite stereotype of Americans is that they don't clean much or work hard. I told them that I wanted them to come to my house for our last meeting but that I would have to clean, and we all had a good laugh. The adults feel their children have adopted American attitudes and this bothers them. The kids, especially Julia, said that life is too short, and Julia's mother replied, "But you watch TV for three hours."

These excerpts from my teacher's journal document some of the complex multicultural and multigenerational issues the members of our class *Grupo Familiar Portugues Americano* confronted this past year. Working to improve our English and Portuguese, we used issues of importance to us as curriculum. We met weekly: eight women from Portugal, 11 children born in Portugal and the U.S., a bilingual assistant, and me. The children ranged in age from four to 15 years old; the adults were from ages 28 to 48. Our wide range of ages, a variety of cultural, school, and life experiences, different familiarity with a spectrum of literacy skills and practices, and varying levels of proficiency with English and

Portuguese all contributed to create a class that was multilevel on many dimensions. In this article I will focus on how our generational and cultural differences surfaced as we experimented and often struggled to find ways to best utilize the strengths and experiences of our members while also meeting our wide range of needs and interests.

Comparisons

Our discussions frequently turned to comparisons of childhoods as well as the differences between growing up in Portugal and the U.S. This led to debates about the expectations parents had for children growing up in a different time and place. We tried to be accepting of different viewpoints and used a variety of approaches to explore the issues, including structured discussions about readings which addressed generational and cultural differences, role playing, and agree or disagree exercises.

Effective learning took place when the kids generated lists of questions and interviewed their mothers about their pasts. This process enabled the children to gain a better understanding of their mothers' experiences and perspectives while encouraging the mothers to reflect on how their own childhoods and cultural experiences shaped their expectations for their children. At the same time, the kids clarified some of their feelings about the cultures they bridge. Some of the questions that generated the most discussion and reflection were: What did you do for fun? How many boyfriends did you have? Did you have to do a lot of chores? When you were small, what did you want to be when you grew up? Did you ever talk back to your parents? Did you get in trouble? Did you ever get in a fight when you were younger? When you were a kid, did you ever say, "When I have kids, I won't ..."? Did your parents ever embarrass you? Have you ever been prejudiced against someone? Was anyone ever prejudiced against you? Why did you come to America? Do you want to go back to Portugal?

Although I was usually an active participant in all of our groups' activities, my son was too young to attend the sessions so I did not participate in the interviews. Instead, I observed the dynamics of the family groups. When the younger children interviewed their mothers, they tended to accept their mothers' answers without requiring further explanation or probing deeper into an issue. Some surprises occurred, such as when Isidro's mother admitted to getting into trouble in school for fighting. He expressed amazement at this and then considered what the consequences would be if he ever did the same in his school. João, age seven, pointed out that, as a child, his mother resented having to work around the house when her siblings were allowed to play. He noted, however, that his mother expected his sister to do more chores than he and his brother.

The interview experience was very different for the teenagers in the group. Filomena, age 13, and her mother sat closely together as they discussed the questions, often laughing and teasing each other. When talking about the interview process, Filomena said she learned quite a bit about her mother and was especially surprised to find out that her mother had three boyfriends before her father. Julia, age 15, confronted her mother, Olga, more directly. When reflecting on an interview which followed the discussion about kids adopting American ways, including a lax attitude towards cleanliness, Julia pointed out the contradiction in her mother's remarks: her mother did not like to clean when she was younger but that she expects Julia to clean now. The tension between them was apparent when I asked the kids if they wanted to write and publish stories based on the interviews. All except Julia were excited by the idea. She asked if they would have to read the stories out loud because, as she explained, "My mother gets upset when I talk like this." I told her that the kids could decide what to do with their stories; she decided that she wanted her essay to be included.

> *"Some surprises occurred, such as when Isidro's mother admitted to getting into trouble in school for fighting."*

New Perspectives

The children did produce a booklet entitled *Our Families Adventures: Past, Present, and Future*, which they presented to their parents at our final session. The content of the stories revealed a heightened understanding of the parents' perspectives and experiences while also highlighting cultural and generational differences. In his story entitled "This is my mom's world," João wrote, "My mom got in fights with my aunt. My mom wanted to be a teacher. ... I love my mom very much." Filomena concluded her story about her mother by observing "It's hard to believe, but I think my mom is very much like me sometimes, and that's why I love my mom so very much." Rather than focus on similarities, Julia

addressed the cultural and generational differences with which she struggles. In "Time Warp" she observed, "...Parents seem to think that we...are totally different from them when they were our age. The truth is that we are living in different times and we can't act the way they did...I think our parents should sometimes stop comparing us...that was then, this is now."

The mothers in the group commented on how much they valued the times set aside for discussion. Not only did they have the opportunity to teach their children more about their Portuguese heritage, but they also learned more about their children and felt they gained a better appreciation of the experiences and attitudes of today's youth. As Olga observed, by learning more about life in the United States, "we can protect our kids."

Through our interactions, we learned that we all had much to teach and learn from each other based on our own life experiences. The children in the group were the experts school life and we adults had to listen to their perspective. The parents were the authorities about past experiences in Portugal and the rest of us had much to learn from their stories. *Grupo Familiar Portugues-Americano* strove to create a setting in which a wide range of knowledge and skills were valued as we came to understand that we all need to learn with and from each other.

About the Author

Eileen Barry is a teacher of ESOL, pre-GED, and GED at the Worker Education Program, part of the Labor Education Center at UMass, Dartmouth, Massachusetts. Barry, who is still working with *Grupo Familiar Portugues-Americano* and is a member of a teacher research group in southeastern Massachusetts, is also a doctoral candidate at the Reading / Writing / Literacy Program at University of Pennsylvania Graduate School of Education.

Multilevel Literacy Planning and Practice

by Cathy Shank and Lynda Terrill

As ESOL practitioners in intensive, non-intensive, family literacy, and workplace classes, we have found that literacy classes are invigorating places where both teachers and learners benefit and grow. We have also found that as ESOL teachers plan and build literacy classes, they need to acquire a great "tolerance of ambiguity," since the literacy classroom is not a neat, simple, or static place.

Teachers need to understand that the multilevel nature of a literacy class is intrinsically advantageous to the class dynamics, that many techniques, activities, and materials are successful in such classes, and that adapting and changing plans can and should happen every day in response to the complex needs of the learners.

We would like to first describe the workings of one multilevel literacy class and then share some general planning and management strategies, as well as classroom activities and techniques which we have found successful.

Multilevel Class

This spring, after having taught advanced ESOL classes for three and a half years, I — Lynda Terrill — went back to teaching literacy-level learners. From April to June, I taught an intensive class, and a non-intensive family literacy class. Although I had taught adult basic education (ABE) and English for Speakers of Other Languages (ESOL) literacy many times before, when I began my class in April, I was immediately reminded about how much planning and adapting it takes to successfully teach a literacy group.

In my class of 24 people, I had women and men from 19 countries who spoke ten languages. The students' ages ranged from 20 to 61 and their education levels ranged from none to 16 years. A few of the students began class upon arrival in the U.S., while two of the students have been here for 17 years. The class included a homeless woman, an engineer, a few people interested in the citizenship test, and at least three people who spoke three or four languages fluently. I mention these facts not because they are startling, but because they are typical. Very different people end up in a literacy class.

This diversity pressed me to plan and adapt daily. I had to try to foster an atmosphere where diversity, change, and ambiguity were accepted and expected. This class was successful because the learners learned to work together well, express their needs, and also because we all learned to be flexible.

At the beginning of the quarter, I needed to reacquaint myself with the old reliables of literacy as well as become familiar with new materials. My program, the Arlington Education and Employment Program (AREEP), is lucky to have an extensive library which includes many class sets available for student use. I needed to dig up some of my manipulatives, borrow from colleagues, and make new ones. I

never felt that I had enough planning time, but that is typical, too. Actually, after the class and I got acquainted, it was the students themselves who chose the lessons, by their responses to various topics and activities.

Getting Acquainted

I have found that the more learners know each other and begin to build a community in the classroom, the more confident and successful they are in their language learning. So, in the first days of class I tried many ice-breaking activities related to personal identification: exchanging name cards, conversation grids, throw-the-ball-ask-questions, alphabet letter 'musical chairs,' bingo, circle and line dialogues, and more.

For example, circle dialogues gave everyone a chance to be physically together in a group. I began by modeling a new or review question and its answer. I asked the question to the student to my left. That student answered me then asked the question to the next student. All could listen to the exchanges many times, while only having to be in the spotlight once. Hearing the exchanges plus the peer corrections and suggestions help students build confidence.

In the line dialogues students became more independent and interactive; probably because I was not listening to all the exchanges. I asked the students — mostly through gesture and example — to form two lines facing each other. One half remained stationary and asked questions while their counterparts moved in circular sequence from question to question. This wonderful confusion of practice, socializing, and laughing liberated the students from preconceived notions of school while helping them to make friends.

Setting Realistic Goals

We also did some needs assessment beginning in the first days of class and we continued informally throughout the entire session. I knew that when I tried to ask students which English skill was most important for them — reading, writing, speaking, or listening — they would say 'everything.' I agreed with that, but I tried to explain that they couldn't learn everything in only 12 weeks so I needed an idea of what was most important. I tried to elicit situations and places where the students might need English, such as getting a job or going to the doctor.

I illustrated and labeled each skill and posted one skill in each corner of the room. I asked the students to stand by the skill that was most important to them. Of course, many students were confused, but through repetition, demonstration, and having learners help each other in their native languages, the instructions were finally understood. As students were still standing in their chosen corners, I wrote their names on the appropriate skill choice and left them posted for the rest of the quarter.

That activity helped prepare students for the more complicated task of choosing which topics to study. I had illustrations of possible topics — such as 'housing' and 'health' — which the students and I discussed until many people understood the choices. Next, I gave students a handout that pictured all the choices and I asked them to circle the five most important topics. Some students circled words and some circled pictures. Students helped each other with the task as I circulated demonstrating and explaining.

The next day, on a transparency, I presented a tally of the topics that had been marked, and the class and I counted together to find out which topics had been chosen. Many students found the entire task challenging both because of unfamiliarity with the concept of needs assessment and because of difficulties in understanding and expressing themselves in English. But everyone ultimately understood the inherent fairness of this group process. The process itself served to forge a strong class bond while showing students that their voices were heard.

> *"This wonderful confusion of practice, socializing, and laughing liberated the students ..."*

All these activities — both ice-breaking and needs assessment — worked in three ways: they helped students to get to know each other and feel comfortable with each other and with me; they helped students to understand that there would be may activities in class, not all of which they would fully understand; and they gave me many chances to assess a variety of skills, ideas, and feeling for each student.

Daily Work

Every day I used a traditional device — copying from the board — to socialize, review old work and present new work, to expand and contract subject matter, assess individual students and groups, and to fine-tune the lesson plan for the rest of that class day. I began the quarter writing the date, my name,

Activities and Techniques

Organizing class sessions around themes chosen by the group is one effective strategy for multilevel groups. Broad topics are fairly easy for even limited English speakers to recognize and choose. Encouraging learners to make these choices helps them understand that class work is relevant. Using whole group activities to begin and end class sessions helps to build a sense of community in the multilevel classroom.

Sharing an evocative photo, drawing, or picture story is one way to introduce a chosen theme. A language-rich discussion can lead to a variety of follow-up activities which can be tailored specifically to the level, needs, and interests of individuals, pairs, or small groups.

Vocabulary Building: To begin generating vocabulary, the teacher can point to the visual and ask, "What do you see?" or "What happened?" Focus on labeling items, events, feelings, and actions that are explicit in the pictures or photos. Learners with stronger speaking skills can contribute vocabulary to the group while rehearsing or correcting words they already know. They may need to learn to read and spell what they can already say. From a list of vocabulary generated by the class, the teacher can help learners select the words they will try to say, read, write, and master.

Language Experience Approach: Following such vocabulary building activities, the group can generate Language Experience Approach (LEA) stories. The teacher changes from focusing on individual words to developing complete sentences by asking leading questions: "What happened first? Then what happened? How did the people feel? Why? What happened at the end?" Based on the students' answers, the teacher writes simple sentences on a chalkboard or flip chart. As individuals from the group dictate, the teacher transcribes, using the learners' own words, re-reading the whole story as each new sentence is added, and soliciting revisions and corrections from the group. Learners who may be unable to

and the quintessential literacy question, "*What's your name?*" and its answer, "My name is ___" on the board.

On the first day of class this writing performed many duties: it comforted non-literate students by letting them know that this would be a "real" class; it gave some more advanced students something to read which included grammar points such as possessives and contractions; it gave an initial focal point to take all of our minds off being nervous; and it gave me a handy snapshot of individuals' literacy skills.

Throughout the class, one of the students, Ibrahim, chose to come to class a half hour early every morning to begin his copying. Ibrahim clearly had special learning needs which were too complex for me to deal with successfully. However, he learned to copy much more confidently than before and plans on continuing his studies.

Leonid, the Russian engineer who refused to move to a more advanced class, came in early, too, since the board work was easy for Leonid, he finished 15 minutes before the other students. To adapt for Leonid, I spent time chatting with him, presenting puzzles, word scrambles, collections of realia and their matching words, grammar or writing sheets related to the topic at hand, or writing new things on the board. With the help of a bilingual dictionary, we had discussions related to our class topics, from how to make borscht to the exchange rate between rubles and dollars. As luck would have it, Leonid sat near others who wanted to try to discuss some of the same things. As other students finished, they would join the conversation, start their own conversations, ask for the puzzles or papers, or practice reading and pronouncing what they had written.

As I circled the room listening to individuals read what they had *written*, I was *under no illusion* that they could all read everything. Some students had memorized the sentences. Sometimes, I needed to read and let the students repeat. It made no difference because it was the one-on-one attention that was important for building students' confidence while they practiced.

The copying process evolved all the time. After a few days, those who were comfortable with the reading and the writing were able to add lib appropriate comments on two blank lines such as: "Hi, good morning, how are you? Today is Tuesday, April 8, 1997." The others copied only the words that were actually written. As the class evolved and those students felt more able, they began to fill the lines by asking questions about the date and spelling so that they could write independently, too. I noticed students helping each other informally or talking about something else. Language that arose from student conversations would make its way to the board. The writing was an anchor that all clung to wherever they could hold on.

Community Building Pays Off

I presented the students with their first conversation grid the second day of class. Throughout the 12 weeks, all students were able to practice listening, speaking, reading, and writing with this tool. When the class practiced personal information questions such as, "What is your last name?" students answered many ways. Some copied from classmates' name cards, some said, "Spell it, please" and wrote down the information. Some questioners required the informants to write their names on the grid. Some copied a completed form from someone else. Some wrote "Martinez," others wrote "My last

name is Martinez," and a few wrote "Her last name is Martinez."

Some students worried that they did not understand the assignment or did not have the ability to finish it. They could see that some people filled in the grid differently. At this point, the foundation of classroom community building and needs assessment helped assuage student fears. I explained, with words and gestures, again and again, how small answers or big answers both could be correct.

Although some students were confused as we first worked on the grids, all were able to communicate, negotiate, practice, and be successful. In fact, the students seemed to view the multilevel nature of the class a positive element in this activity, just as I did.

Managing and Planning

Learners who find their way to the ESL/Literacy classroom are a diverse group; their abilities, needs, and desires vary as much as their languages, cultures, and personalities. Managing the classroom is easier when the teacher knows what students want. Of course, learners in the same class may want to study different things. Knowing what they want can help a teacher to plan groupings: who needs more writing, who just wants to talk, who is willing to help, and who needs to be quiet.

Using many types of activities makes it possible for the teacher to address not only the multilevel nature of a class but the learning styles of the individual class members. We have found that such activities as Language Experience Approach (LEA) stories, manipulatives, conversation grids, and listening activities, engender confidence as well as independent language production. Teachers who are familiar with such techniques can prepare lessons without undue time and anxiety.

To be successful in teaching multilevel groups, we think it is important to plan a variety of flexible and interrelated activities and to always have more than enough on hand. Materials or activities that you prepare can always be set aside for use at another time or with another group. Some of our favorite resources and texts are included in the *Blackboard* on page 24.

Beginning with the assumption that no single textbook will offer all the materials and exercises that a multilevel class will need frees teachers to work with learners to create activities that are appropriate and necessary. As teachers listen to the voices of their learners, they can find directions for where the class should go. Once learners and teachers know and respect each other, multilevel activities are the natural, easily adaptive tools to use, so that all can learn together. ❖

About the Authors

Cathy Shank, Special Projects Coordinator for the West Virginia ABE Staff Development Office, has worked in ESOL and ABE programs for the last 12 years as a teacher and as an administrator. With a special interest in literacy level and learning disabled adults, she has taught in classroom and multi-media learning centers as well as provided teacher training to adult educators. She is the author of Heinle and Heinle's *Collaborations: Assessment Program*.

Lynda Terrill teaches all levels of adult ESOL and family and workplace literacy at the Arlington Education and Employment Program in Arlington, Virginia. She also taught ABE and GED with the Skills Enhancement Training (SET) Program of the Local 442 of the Food and Beverage Workers Union in Washington, DC. She is also an author of books in Heinle and Heinle's *Collaborations* series. ❖

dictate sentences can still gather basic words, ideas, and structures from the discussion. Classmates who speak the same native language may be able to help each other understand new words and concepts that are not explicit.

An LEA story can serve as a jumping off place for copy practice and additional reading and writing activities. Stories the learners create are likely to reflect the vocabulary and syntax they are able to understand and read. A class story can be read aloud as a group, in pairs, and individually. Afterward, the same text can be typed — sometimes by students themselves — and printed and reprinted in different ways to create sentence strips and cloze exercises. Since sequencing is an important aspect of literacy, class LEA stories that are based on picture story sequences provide learners the opportunity to practice arranging the pictures in order, retelling the story, and matching the pictures to sentence strips.

Cloze Exercises and Comprehension Questions. It is easy to create cloze exercises at varying levels of difficulty by deleting selected words from a class story and reprinting it several times. The number and choice of deletions can be varied for each printing according to the ability of those who will be doing the exercise. The teacher can provide a list of the missing words to learners who need such assistance. Learners who are working at different levels can work cooperatively.

The teacher can also construct comprehension questions based on a class story. Questions can range from yes/no and either/or to Who, What, Where, and Why. The whole group can discuss their answers.

Manipulatives. Word and picture vocabulary cards created from class discussions and LEA stories can provide a number of manipulative activities and games. Many literacy learners need the kinesthetic reinforcement of moving and handling vocabulary cards and other manipulatives such as money and clocks. Some learners who are uneasy about expressing themselves orally can demonstrate their knowledge and understanding by holding up or pointing to the right answer. Many of

Continued on page 22

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the simplest games and activities using manipulatives can be practiced individually or in pairs while other groups of learners are engaged in distinctly different activities.

Vocabulary cards can be used as flashcards for word recognition, cue cards for grammar-based drills, or for arranging and rearranging in categories. Word and picture pairs can also be matched in games like *Concentration* or *Go Fish*. For practice during and outside of class, every literacy learner needs upper and lower case alphabet cards, numeral and number word cards, as well as days of the week and months of the year cards, in both abbreviated and full form. In addition to basic recognition drills, learners need practice in matching, alphabetizing, and sequencing.

Conversation Grids: Conversation grids are easy to adapt so that all learners are involved in the same task but at varying levels of difficulty. The horizontal axis of a grid usually contains a cue for the type of question to be asked. The vertical axis provides a place to write the names of those who respond. Spaces on the grid are for writing in answers to the questions. Students ask each other questions to get the information necessary to fill in the grids.

For beginning literacy learners, pictures or one-word cues can be used. The most proficient learners may have grids with many cues and/or many blank lines. Those who are slower at writing information may write less information or speak to fewer people when completing their grids. For example, if the topic is "family members," some learners may have only picture cues for mother, father, children, while other learners have the words written out. Some learners only need to ask "Do you have a ...?" and write a yes/no answer. Other learners are required to ask that plus "What's his/her name? How do you spell it?"

Multiple Choice Listening Exercises: Listening exercises can also be adapted to varying levels. Creating multiple choice exercises for a multilevel group is more time-consuming than making grids, but they work well at the end of a lesson, especially for identification of picture vocabulary and sight word recognition. The teacher prepares worksheets at varying levels and learners select the ones they want to try. Some learners have more choices, such as pictures, words, or sentences, for each item and their choices are a little more difficult. The whole group listens to the same instructions and the same prompt for each item and then each person selects the correct choice on his or her particular worksheet. For example, if everyone hears, "The month is March," one learner's choices might include only three items which look distinctly different: October, March, and December. That learner must only distinguish between initial consonants. Another learner's worksheet may have four choices that look much more alike: Monday, March, May, and my. This learner must use more clues to decide on the correct choice.

— by Cathy Shank

Connections

This past spring, the Adult Literacy Resource Institute (ALRI), a staff development resource center located in Boston, supported a teacher research project focused on multilevel classes. About nine teachers participated. The results of their research and some of the practical classroom materials they developed have been published in an annual journal entitled *Connections*.

For a copy of *Connections*, please send a check for $1.93 (or the equivalent of $1.93 in postage stamps) made out to: ALRI Roxbury Community College. Send it to the attention of:

Steve Reisys
Adult Literacy Resource Center
5980 Commonwealth Avenue
Boston, MA 02215

Literacy programs in Massachusetts can receive a free copy by calling (617) 782-8050 or by writing to the Adult Literacy Resource Institute.

Call for Help with Research

Home Literacy Use

Vivian Polcoff Cohen, Harvard Graduate School of Education, and a principal researcher at NCSALL, is looking for adult literacy classes to participate in a study of home literacy use by adult literacy students. Participating teachers will receive a free copy of the final report.

For the research, the following is required of the literacy class teacher: (1) take part in a 45-minute interview regarding the nature of the literacy class activities, assessments, materials, etc.; (2) allow a researcher to observe a typical class; (3) help recruit adult literacy students to take part in the study. The following is required of each student who participates: (1) allow a researcher to visit his/her home to conduct a 45-minute interview; (2) allow a repeat of this about every three to five months. Students will be paid for each interview. Teachers will be given a copy of the final report. The findings will also be shared in workshops and through *Focus on Basics*. If interested, please contact Vivian Polcoff Cohen at the Harvard Graduate School of Education, 349 Larsen Hall, Cambridge, MA 02138; phone: (617) 495-4523; e-mail: polcoff@hugse1.harvard.edu.

Health and Literacy

Rima Rudd, Harvard School of Public Health and a principle researcher at NCSALL, is doing research on teachers' experience with content-based curricula, health in particular. As part of her research, Rudd is developing a survey that she will distribute to teachers by mail this fall.

If you have experience focusing on health topics in an ABE, GED, or ESOL classroom, you are invited to participate in this survey. After the answers to the survey are compiled, you will receive the results and your interpretation will be solicited. Your help in highlighting those areas of particular interest to teachers will also be requested. If you are interested in participating or have a story to share, please contact Dr. Rudd at the Department of Health and Social Behavior, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115; fax: (617) 432-4558; e-mail: rudd@hsph.harvard.edu.

on research

Longitudinal Study of Adult Learners

A longitudinal study is one in which researchers follow a group of people over time — in this case, for five years or more — periodically asking the same questions, looking for change. Different than comparing pre- and post-tests to judge program impact, longitudinal studies follow individuals and take into account a wide array of variables that make a difference in people's lives. Numerous small-scale, often in-depth surveys and ethnographic longitudinal studies of adult learners have been conducted in the past, providing the field with much needed knowledge. Missing, however, is a large-scale longitudinal study, one that includes enough learners to allow us to generalize findings to the population, and one that provides us with evidence of the impact of literacy learning over time.

Three Questions

With Steve Reder, Associate Professor of Psychology at Portland State University, as principle investigator, NCSALL hopes to follow a large group of adult learners. 5,000 to 15,000 might provide a nationally representative sample. Such large numbers are needed to make sure enough representatives of key subgroups — for example, Latinas — are included. The study will look at these broad research questions: 1) the growth of the study participants' literacy abilities along with other skills and knowledge, 2) the impact of various experiences, particularly participating in literacy education programs, on the development of their literacy abilities and other skills and knowledge, and 3) the relationship between improved literacy and other skills and knowledge on important personal, social, and economic aspects of participants' lives. This information will, in turn, let us say something substantive about the impact of adult literacy education, help us design more learner-centered systems, and add to our understanding of how "soft" measures of adult learning — the kind of change teachers often see but find hard to document — are related to changes in standardized test scores.

Design Challenges

The first question to answer in designing a longitudinal study is "What questions are we hoping to answer?" Through an iterative process involving many policymakers and practitioners, Reder has decided upon the three questions listed above. Next, he must decide whom to include in the survey — the range of skill levels and ages to include are just two of the decisions to be made.

The biggest question is whether to include the ESOL (English for Speakers of Other Languages) population or not. It means lots of extra work in terms of instruments, procedures, cross validation issues, says Reder. In other words, designing instruments and questions that measure the same things in the same way across languages is difficult. And then we must ask, "Which other languages?" For each additional language, a large enough subgroup must be surveyed to provide reliable information, additional surveyors must be recruited and trained, and field procedures must be monitored to assure that one everyone's work is consistent. This quickly inflates the size, complexity, and cost of the study. Although almost everyone wants to include ESOL learners in the study, it will be challenging to secure the extra resources needed to do so. At publication date, NCSALL is still exploring the costs and tradeoffs among various study designs and target populations.

Since longitudinal studies are costly, NCSALL must develop cost-effective techniques for collecting needed information from participants. A major issue is keeping track of study participants between rounds — or "waves" — of data collection, so that people can be inexpensively located if they move. Another issue is collecting data face-to-face as opposed to over the telephone. The initial wave will likely include questions asked and literacy assessments conducted in person, with survey staff visiting participants in their homes. Subsequent waves could be collected via telephone at a considerable cost savings compared to face-to-face interviews. But, to use telephone interviews effectively in this study, the challenge of gathering accurate information about adult learners' literacy proficiencies over the phone must be met. Reder is considering pilot-testing innovative ways to assess literacy. Whether some combination of unobtrusive methods will validly measure literacy gains over time is a question Reder and his colleagues will be looking at as they design the study.

An additional design challenge is deciding which of many possible topics to ask questions about, and how to ask them so that the answers are accurate and useful. Once survey questions are decided upon, the survey will be drafted and tested, revised and retested. At each step of the process, Reder will solicit input from members of the adult literacy field. For updates on the longitudinal study, visit the NCSALL web page (http://hugse1.harvard.edu/~ncsall/), or contact Steve Reder at Portland State University, P.O. Box 751, Portland, OR 97207; phone: (503) 725-3909 fax: (503) 725-3904; and e-mail: reder@pdx.edu.

— by Barbara Garner

BLACKBOARD

ESOL Resources

- E. Berry & M.S. Williams, *Multilevel ESL Curriculum Guide* (Salem, OR: Oregon State Department of Education, 1992) (EDRS No. ED 351 880)
- *Hands on English* (Carlsbad, CA: Dominie Press, Inc., 1988) (a monthly newsletter)
- S. Ramirez, "Preserving the Multi in the Multi-Level ESL Classroom," *Adult Learning* 3, no. 6 (February 1992): April.
- H.S. Wrigley & G. Guth, *Bringing literacy to life: Issues and options in adult ESL literacy* (San Mateo, CA: Aguirre International, 1992) (EDRS No. ED 348 890)(Available from Dominie Press at 800-545-4753.)

Multilevel Resources For Literacy Classes

- R. Boyd & M.A. Boyd, *Input-Output* (Normal, IL: Abuca Books, Inc., 1980)
- J. Croos, *Ready-Dolore* (Carlsbad, CA: Dominie Press, Inc., 1987)
- M. Fuchs, J. Frankel, & C. Meyers, *Crossroads I: Multilevel Activity and Resource Package* (New York, NY: Oxford University Press, 1991)
- M. Gramer, *The Basic Oxford Picture Dictionary* (New York, NY: Oxford University Press, 1994)
- S. Heyer, *Picture Stories for Beginning Communication*, (Englewood Cliffs, NJ: Prentice-Hall Regents, 1989)
- F. Lignon & E. Tannenbaum, *Picture Stories: Language and Literacy Activities for Beginners*, (White Plains, NY: Longman, Inc., 1988)
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- E. Parnwell, *The New Oxford Picture Dictionary*, (New York, NY: Oxford University Press, 1988)
- K.A. Santopietro, *In Other Words*, (San Diego, CA: Dorman, 1989)
- N. Takahashi, *Action English Pictures*, (Hayward, CA: Alemany Press, 1985)
- J.E. Winn-Bell Olsen, *Look Again Pictures*, (Hayward, CA: Alemany Press, 1984)

Computer Programs For Math

- *Bradford Problem Solving* and *Math Trek*, available from William K. Bradford Publishing Co., Inc., 16 Craig Road, Acton, MA 01720; telephone (800) 421-2009
- *Steck-Vaughn GED 2000*, available from Steck-Vaughn Company, 8520 Executive Center Drive, Austin, TX 78731; telephone (800) 531-5015
- *Math Skills* and *Math Basics*, available from Glencoe/McGraw-Hill, P.O. Box 543, Blacklick, OH 43004-0543; telephone (800) 334-7344
- *Contemporary's GED Interactive*, available from Contemporary Books, 2 Prudential Plaza, Suite 1200, Chicago, IL 60601-6790; telephone (800) 621-1918

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http://hugse1.harvard.edu/~ncsall

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CONTENT-BASED INSTRUCTION

1
Poe, Alcoholism, and ESOL
Lynne McCarthy and Bernadette Comeau

6
The Theory Behind Content-Based Instruction
Tom Sticht

10
Too Little Time and Too Many Goals
Larry Mikulecky

14
Hooked on Learning: The Internet Poetry Project
Linda Parrish

17
Developing Materials and Curriculum
Char Ullman and Aliza Becker

20
The Impact of Content-Based Instruction
Barbara McDonald

23
Focus on NCSALL's Research: Health and Literacy

Poe, Alcoholism, and ESOL

by Lynne McCarthy and Bernadette Comeau

The first issue of Focus on Basics *included an article on qualitative research by Glynda Hull. Inspired by this piece, teachers Lynne McCarthy and Bernadette Comeau decided to do qualitative research themselves. They explored the question of how using the work of Edgar Allan Poe might improve the quantity and quality of discussion in their English for speakers of other languages (ESOL) classroom. After looking over their data, they met with Ray Kelley, an expert in the field of court and correctional substance abuse programs, who helped them develop a theoretical framework for their analysis based on the tenets of Alcoholics Anonymous (AA). In this article, they share their experiences with us.*

We are always searching for lessons that generate spirited discussions in

Continued on page 3

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Focus on Basics is the quarterly publication of the National Center for the Study of Adult Learning and Literacy. It presents best practices, current research on adult learning and literacy, and how research is used by adult basic education teachers, counselors, program administrators, and policy makers. *Focus on Basics* is dedicated to connecting research with practice, to connecting teachers with research, and researchers with the reality of the classroom, and by doing so, making adult basic education research more relevant to the field.

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NCSALL

National Center for the Study of Adult Learning and Literacy

Welcome to *Focus on Basics*

Dear Readers,

This issue of *Focus on Basics* centers around content-based instruction, instruction that, as Dr. Thomas Sticht explains in the article that begins on page 6, focuses upon the substance or meaning of the content that is being taught in addition to literacy processes or skills.

Why are teachers of adult basic education and English for speakers of other languages turning to content-based instruction? They must be finding that it works, that learners learn both the content and the skills of reading and writing, English speaking and listening. We were lucky to find a number of researchers, university and classroom based, who have done work in this area. Their studies seems to confirm this theory. Linda Parrish, Lynne McCarthy, and Bernadette Comeau, doing research in their classrooms, all found that focused content — especially that which touches the lives of the learners — seems to motivate students. Tom Sticht and Barbara McDonald found that content-based instruction, as compared to general instruction, is correlated to increased reading gains. This may be because, as Larry Mikulecky and colleagues discovered, when the content of content-based instruction is material that learners also use outside the classroom, practice time increases. Mikulecky also wisely points out that content-based instruction is not a "silver bullet." Teachers must use a variety of strategies to produce learner change.

Content-based instruction won't work at all if the content is not of interest to the learners. Sometimes, the content is dictated by the funder: job seeking skills are often a required content, for example, or a particular workplace topic may be the focus of a workplace education course. Then the teacher has to find a way to make it interesting. More often, however, the content is left up to the teacher. Some teachers find it easy to identify a content that will resonate with students. Others turn to their students and involve them directly in determining a content. Teacher educators Char Ullman and Aliza Becker provide some suggestions on how to do this in the story that begins on page 17. They also provide one model for developing content-based materials.

All the teachers I've talked to who are using content-based instruction are turning to the Internet for materials. Visit *Focus on Basics* on our web site, http://hugse1.harvard.edu/~ncsall, for links to some of the sites the authors in this issue found most useful.

Sincerely,

Barbara Garner

Barbara Garner
Editor

Poe...

continued from page 1

English. The class sessions we describe here are those in which students effectively used and practiced communication skills, in particular the ability to relate what they learned about Edgar Allan Poe to what they experienced in their own lives. We feel that this achievement is one of the most significant reasons for using content-based instruction in ESOL classes.

Our Students, Our Mission

The ESOL students we teach at the Billerica House of Correction are predominantly Latino men whose ages range from 17 to 60. Most do not have high school diplomas and about two out of every ten cannot read. The criminal offenses for which they are incarcerated often include drug possession and dealing, domestic violence, stealing, or drunken driving. Their psychosocial histories often reveal childhoods filled with neglect, violence, and dysfunction.

As prison educators, our mission includes providing opportunities for academic improvement, such as speaking, reading, and writing English, and offering learning situations that allow our students to understand some of the fundamental problems that plague their lives. Prison education is one piece of a multifaceted rehabilitative approach to reduce recidivism. We are called upon to interpret and facilitate other institutional services available to our students. Hence, we are aware of the many issues and crises our students encounter.

Substance abuse is prevalent in 80% to 85% of men committed to penal institutions in Massachusetts (MA SJC, 1995). We find these statistics accurate among our students as well. Our students' willingness to speak frankly about their problems with alcohol and drugs inspired us to learn about AA, since it is available to them. We did not teach the AA tenets, nor did we know them when we taught the unit upon which we focused our research. When we revisited Poe's works through the lens of the *Twelve Steps* (1981), however, we learned what our students had readily seen: that Poe's characters are imbued with the very same despair, loneliness, resentment, and guilt that the substance abuser suffers from. It was that discovery that prompted us to share what we had learned via this article.

Classroom Goals

Giving a human context to our learning content is always a major goal when we plan curriculum. "To present knowledge cut off from human emotions and intentions is to reduce its affective meaning" (Egan, p. 30, 1986). Our primary academic goals include conversing in English in a meaningful, spontaneous manner, and practicing reading, pronunciation, and comprehension skills. While we do teach and emphasize the practical applications of reading, such as job-related and daily-living skills, we equally emphasize and equate the ability to read with experiences that can change and expand a person's life. "What is required to be eager to learn to read is not knowledge about reading's practical usefulness, but a fervent belief that being able to read will open to him a world of wonderful experiences, permit him to shed his ignorance, understand the world and become master of his fate. For it is faith that kindles one's imagination and gives one the strength to undertake the most difficult tasks..." (Bettelheim & Zelan, p. 49, 1981).

Why Poe?

We chose Edgar Allan Poe as the content of our unit because we felt the tragic circumstances of his life and his struggle with alcoholism and drug addiction coincided with themes generated during classroom discussions. He is an American author about whom we feel passionately. In addition, we conducted the unit in October and wanted to give our students a flavor of the spirit of Halloween. While we used many of Poe's stories and poems, the pieces discussed in this article are "The Tell-Tale Heart," "The Raven," and "The Oval Portrait."

Because we teach in an open-ended program with a transient population, our lesson design is short, self-contained, and intended to be completed in one or two sessions. We team-teach two separate classes, for two-and-a-half hours, five days a week. During beginning lessons, we usually introduce new vocabulary. We then break into two small reading groups based on ability. Each student in the group reads a few lines of the text and then passes, as the group practices pronunciation, usage, or vocabulary. After each paragraph, we ask questions about information in the text to assess students' reading comprehension and see if the students can make inferences about the text. We include skill activities such as word finds and scrambles, cloze sentences, vocabulary and definition matching, and multiple choice and written comprehension questions.

The Beginning

We began the unit we researched with a one-hour PBS video entitled *Poe: Terror of the Soul* (1995), which provided biographical information as well as dramatizations of Poe's well known works. Choosing short, yet meaningful, reading texts on Poe's life was difficult. Students in an advanced English course on Poe at the Naval Academy in Annapolis have created a site on the Internet called "The Poe Perplex." We used

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two biographical writings, one by J.A. Black, one by T. Poulter, from this site.

In Black's three-page paper, "How Did Poe Survive for Forty Years?" (1996), our students struggled with vocabulary. After reading each paragraph, we defined unfamiliar terms, had them reread silently, and then asked them to paraphrase what they understood. The terms melancholy, depression, gloom, and lonely generated discussion on usage. Students asked for model sentences in the first person, which suggested to us that they identified with the suffering Poe experienced. One student remarked that English had many different words for "enfermedad" — sickness, illness, ailment, disease.

> *"Alcoholism is a disease that is no respecter of age, sex, creed, race, wealth, occupation, or education... anyone can be an alcoholic." (AA)*

While Black's paper elicited discussion focusing on vocabulary and usage, the paper by Poulter, entitled "Edgar Allan Poe and Alcohol" (1996), brought forth a richer conversation. This might be because the students had grappled with the difficult vocabulary in Black's piece and were ready to focus on content. In his paper, Poulter appears to contradict himself. He says Poe was not an alcoholic, then describes Poe's drinking habits: "One drink was too much...He drank either to oblivion or until he was out of money" (1996). AA says that one drink is too many, a thousand is not enough.

We asked, "Was Poe an alcoholic?" In this session, most of our students were men in their early twenties. They tended to agree with Poulter despite Poe's documented behavior. However, one middle-aged student, Antonio, — all students' names have been changed — disagreed strongly with the younger men's impressions of Poe. While Antonio had attended classes regularly for about six months, he rarely spoke about personal experiences. Yet, during our study of Poe, he spoke freely and authoritatively. He argued that because of drinking he had experienced circumstances similar to Poe's, so he knew Poe was an alcoholic. Antonio said that many times he had very good intentions of having only one beer, never was it only one. In fact, because he drank excessively and often in binges, he alienated all those he loved and who loved him. He spoke about his ability and willingness to remain involved in AA to maintain a sober lifestyle.

Connections

Our students were engrossed in the physical and psychological terror of "The Tell-Tale Heart," in which the narrator has murdered a man he claims to have loved because he hated the man's eye. Antonio immediately made a connection between the old man's corpse and his personal life "...chopped up like the movies. My wife threw away all my scary movies because I would be drinking and watching them over and over...She was afraid I would turn into them."

When discussing why the narrator killed the old man, Antonio commented, "sometimes when you are mad you can do terrible things." Pedro, a student in his early twenties, said, "He hated his eye. ...He don't love him, he killed him."

Everyone agreed with Pedro except Antonio, "Don't you read the papers? ...Some men kill their wives — jealousy, sometimes the wife does nothing...the man is jealous for no reason."

As we read "The Raven" aloud to our students, they focused on the narrator's state of oppressive grief and alienation. In reflection, we feel that the narrator is like many of our students: depressed and isolated. Alone in his "chamber" he "eagerly wish[es] the morrow." He describes himself as "weak and weary" as he futilely attempts to distract thoughts of Lenore. The students immediately compared their own lives to that of the narrator. Many students commented, "I sit alone in my cell, thinking about why."

One student asked, as if to verify his suspicion, "This is a real story?" He asked the others in the group, "What do you think?"

The lines "...sorrow for the lost Lenore — For the rare and radiant maiden whom the angels name Lenore — Nameless here for evermore" caused the students to wonder aloud, "Where is she? Where is Lenore?"

One answered, "Maybe he's waiting for her."

Another, "No, he can't have her anymore."

Juan, who had been in our group for about a year, had periods of depression. After reading and discussing "The Raven," Juan was particularly concerned about the narrator's mental stability. Much like the narrator's musings, he often asked, "What's in the bird's mind?" To "This I sat engaged in guessing, but no syllable expressing — To the fowl whose fiery eyes now burned into my bosom's core" Juan responded,

"Before he's thinking of sadness. The bird is looking into his pain. The word 'nevermore' hurts him. He feels 'Where's my love?'"

Students explored the causes of the narrator's pain and desire to drink 'nepenthe' to forget Lenore. Some students suggested that the bird was trying to make the narrator accept that Lenore was dead. They felt the narrator was trying to deny this and therefore could not go on with his life. Some asserted that the bird was causing the pain, that outside forces are responsible for an individual's problems. Others agreed that outside forces can influence our lives tremendously, but we need to deal with these forces or they will destroy us. They believed his pain was due to his inability to overcome the grief of losing Lenore. Juan stated, as if he were speaking directly to the narrator, "You must look at the bird — you've got to stop and cry — and forget about Lenore — the pain of Lenore... but you've got to stop—"

We asked, "What happens if you don't stop?" Juan said, "You don't get better."

Another student said, "You die."

Like the Narrator

We feel that Juan and the other students easily identified with "The Raven" because Poe's writing emanates from a place of pain, suffering, and grief. Poe is able to capture the sense, sound, and feeling of suffering and alienation, and to transform it into poetry. Although the vocabulary is difficult, the students could understand this transcendent quality. After we read "On this home by horror haunted — tell me truly, I implore — is there — is there, balm in Gilead? — tell me — tell me, I implore!' Quoth the Raven 'Nevermore,'" we asked the group, "What is the question he's asking?" Juan answered, "He wants a cure, healing. A cure to stop his suffering. The author of this poem suffered from pain. He was abandoned. His mother and his wife died... this makes him suffer... maybe they are together now. In many of Poe's poems, there are people who suffer. But this Raven he doesn't even give him a chance."

After finishing the unit, students – particularly Juan – continued to maintain an interest in Poe. Three weeks before his sentence ended, Juan asked if he could tell the story of "The Oval Portrait" by Poe to the class. A few days later, we read it as a group. At the close of the discussion, Juan, striving to understand the story, asked, "Why is the artist so sad, so moody? It's like he can't take it, he's exhausted...it's like some people. They are so filled with remorse for what they did or what they are doing that they can't stop and think about what's important. Because if you let yourself be filled with that remorse or grimness, then you can't go on. You need to be strong and continue to try to be happy with your life."

Reflections

During the data analysis process, we reviewed our notes, reading selections, activities, and goals. We were most pleased with the quantity and quality of student-directed dialogue that occurred in this unit. Students' readings of the poems were quite fluid and beautiful. Poe's use of rhyme and rhythm helped to guide student pronunciation.

We felt the video and the biographical pieces presented at the start of the unit were key to student motivation. These provided the students with a deeper understanding and identification with Poe. The students made connections we never imagined. It was amazing to hear a student say, "That's how I think when I'm drinking," when reading about a character's thoughts or behavior in a story or poem. For us, content-based instruction allowed for more focused and meaningful teaching. While exploring Poe's life and works, we were able to focus on language and literacy objectives, as well as allow our students the opportunity to examine facets of human nature.

In reviewing our activities, we realized that, except for the poetry, we used abridged versions of Poe's stories. This accommodated our need for short, self-contained lessons and level-appropriate material. Next time, however, we will include the CD-ROM of the "Fall of the House of Usher," where the unabridged story is narrated.

We also recognized that we did not provide many opportunities for students to write. In the future we plan to ask students to highlight Poe's life by writing his obituary based on the classroom readings. We will assign expository writing exercises, perhaps by asking students to compare a Poe character to a particular tenet of AA. The AA philosophy can serve as a counterbalance, an offering of a solution to the darkness to which Poe succumbed.

"There are cases where our ancient enemy, rationalization, has stepped in and justified conduct which was really wrong." (AA)

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The image of Edgar Allan Poe that appears on page 3 was painted by a student who is no longer at Billerica House of Correction. ✣

The Theory Behind Content-Based Instruction

by Thomas G. Sticht

> **Content:** n. 1. Often **contents** Something contained, as in a receptacle: the contents of my desk drawer; the contents of an aerosol can. 2. Often **contents** The subject matter of a written work, such as a book or magazine. 3. a. The substantive or meaningful part. *"The brain is hungry not for method but for content, especially content which contains generalizations that are powerful, precise, and explicit."* Frederick Turner. b. The meaning or significance of a literary or artistic work.
>
> *– The American Heritage Talking Dictionary, 1995, CD for Apple Macintosh computer*

In adult basic education, including the learning of English for speakers of other languages (ESOL), content-based instruction is instruction that focuses upon the substance or meaning of the content that is being taught. This is in contrast to "general literacy" or "general language" instruction, which use topics or subject matter simply as a vehicle for teaching reading and writing, or the grammar or other "mechanics" of English language, as general processes (Brinton, Snow, & Wesche, 1989). Various "general literacy" programs may also emphasize the learning of general processes such as "learning to learn," "critical thinking," or "problem solving" skills. In such instruction, the emphasis is upon developing the general processes, and the content that is used is generally treated as of only incidental interest.

In this paper, I will first provide a perspective from cognitive science that emphasizes the importance of both content and processes in human cognitive activity, including literacy. Then I will discuss a program of research on content-based instruction which has been considered influential for workplace, health, and family literacy programs that integrate content with basic skills instruction (Shanahan & Neuman, 1997). This research was the first to apply concepts from both behavioral and cognitive science to the development and evaluation of an entire, operational adult literacy program.

The new content-based program was demonstrated to be more effective in achieving both content-related and general literacy outcomes than the general literacy education programs that professional adult literacy providers had already put into operation. Its effectiveness was replicated when it repeatedly replaced existing general literacy programs at sites in six different states from the west to the east coasts. No other research has been found in the field of adult basic education that provides this type of evidence for a content-based program's effectiveness.

To be sure, many projects demonstrate that basic skills instruction can be integrated with theme- or content-based instruction in numerous job-related, "life skills," and other "functional" basic skills programs (see, for example, Gedal,

1989, for an example of a job-related adult literacy program; Sissel, 1996, for health-related and other types of content-based adult literacy programs). But to my knowledge, except for the research reviewed, no research compares content-based programs to process-oriented programs that are already in place. For this reason the present paper cannot provide an extensive review of research on the effectiveness of content-based instruction.

I am also unaware of any research in adult literacy education in which the researchers were able to take an existing program and replace it with one that reflected their theoretical positions and consistently produce better outcomes than the one replaced, and that this could be replicated by various teachers and administrators among different adult literacy student populations from across the nation. These are tough criteria for evaluating research-based programs, but they are the criteria that we need to apply when evaluating the claims of advocates of different approaches to adult literacy education.

Content and Process in Cognition

> **Cognition; Cognitive (adjective):** (1) The mental process or faculty by which knowledge is acquired; (2) that which comes to be known, as through perception, reasoning, or intuition; knowledge.
>
> — *The American Heritage Dictionary*, 1976

One of the achievements of cognitive science is the confirmation of the dual nature of cognition given in the dictionary definition: all human intellectual activities, such as thinking, communicating, problem solving, and learning, require both processes and content (knowledge). This implies that attempting to raise people's cognitive abilities to high levels simply by improving processes such as "reading," "writing," "critical thinking" is nearly futile. To perform these processes well requires high levels of content knowledge on which the processes can operate.

Cognitive psychologists have studied information processing in reading. They have found that what people know about what they are reading greatly influences their ability to comprehend and learn from texts. In one study, young adults in a remedial reading program required 11th grade "general reading" ability to comprehend with 70% accuracy if they lacked much knowledge relevant to what they were reading. On the other hand, those with high amounts of knowledge about what they were reading were able to comprehend with 70% accuracy with only sixth grade "general reading" ability (Sticht, et al., 1986).

The "Architecture" of Cognition

The influence of computer scientists who strive to develop artificial intelligence has focused more attention on the role of knowledge in human cognition (Sticht & McDonald, 1989). It has also lead to the concept of a human cognitive system that is based on the metaphor of the mind as a computer. In this approach, the mind is considered to have a long term memory that stores knowledge. This long term memory is essentially infinite in capacity.

In addition, the human cognitive system contains a working — or short term — memory that contains our thoughts of the moment. The working memory calls on knowledge in our long term memory, or what is sometimes called our knowledge or data base. It uses that information in the comprehending, learning, communicating, and reasoning that it is involved in at the moment. But,

"...what people know about what they are reading... influences their ability...to comprehend..."

unlike the long term memory, the capacity of the working memory is severely limited. We cannot keep too many things in mind at one time because of the limited capacity of our working memories.

Among the important findings from studies of the limited capacity of working memory is that the capacity can be expanded if some of the mental processes involved are automated. For instance, in reading, it has been found that students who must occupy their limited working memory in decoding print to speech, as in phonics, cannot comprehend well what they are reading. Comprehension requires additional processing "space" in working memory, particularly in regard to addressing knowledge in long term memory and merging it with the new information gleaned from the book (see Sticht, Beck, Hauke, Kleiman, & James, 1974, for an early discussion of the concept of automaticity and its role in decoding and comprehension during reading; Adams, 1996, brings the discussion up to date).

To efficiently read and comprehend, the decoding aspect of reading must become automatic, that is, performed without conscious attention. This can only be accomplished by hours and hours of practice in reading. This is one of the reasons why adults who leave literacy programs having completed just 50 to 100 or so hours of instruction do not make much improvement in general

reading comprehension: they have not automated the decoding process. A second reason is that, to markedly improve reading comprehension, one must develop a large body of knowledge in long term memory relevant to what is being read. Like skills, the development of large bodies of knowledge takes a long time.

The 1940's

In World War II, the military services conducted extensive programs aimed at providing new recruits with reading skills of a functional nature. Soldiers and sailors learned to read so they could comprehend material about military life. Because the time for teaching literacy was very limited, usually less than three months, the reading instructional materials had the complexity of materials typically encountered by the end of the fourth grade of public education, but they did not cover the breadth of content that a typical fourth grader would have encountered. Rather, they taught reading by emphasizing a relatively narrow body of content knowledge about the military. Further, the readers were designed to build on the new recruit's experiences and prior knowledge about the world acquired before entering service. For instance, the *Private Pete* series starts with Pete at home on the farm. Then he goes to a recruiter and signs up to join the Army, rides a train to camp and is assigned to a barracks, and so forth. Because that is the procedure the vast majority of new recruits in literacy programs followed in joining the Army in the 1940's, this was content — prior knowledge — that they could talk about and comprehend, but they could not necessarily read words like "farm," "recruiter," "train," or "barracks."

Given the need to train soldiers quickly, the military programs were designed so that the recruits would only have to learn what they did not know. If a soldier had some basic decoding skills and could already recognize some words in print, emphasis was on providing practice in reading to develop word recognition skills to levels of automaticity, to reduce the processing load in working memory (cognitive process), and to develop new vocabulary and concepts about military life (cognitive content). Evaluation studies showed that literacy program graduates achieved job effectiveness ratings that were 95% as good as those of average ability, non-literacy student personnel (Sticht, Armstrong, Hickey, & Caylor, 1987).

The War on Poverty Era

During the 1960's, the military services recruited personnel with better literacy skills, but they also required higher skill levels due to the increased technological complexity of the military environment (Sticht, Armstrong, Hickey, & Caylor, 1987). During this time, I directed research teams that developed content-based literacy programs that continued the practice of focusing on a relatively narrow body of functional content. This time the literacy programs used materials not about general military life, but about specific job content. In this case, personnel who were going to be trained as cooks – both native and limited English speakers — learned word recognition and comprehension skills by reading from cooks' materials. Those who were going to be automobile mechanics read mechanics' materials, those becoming medics read medics' materials.

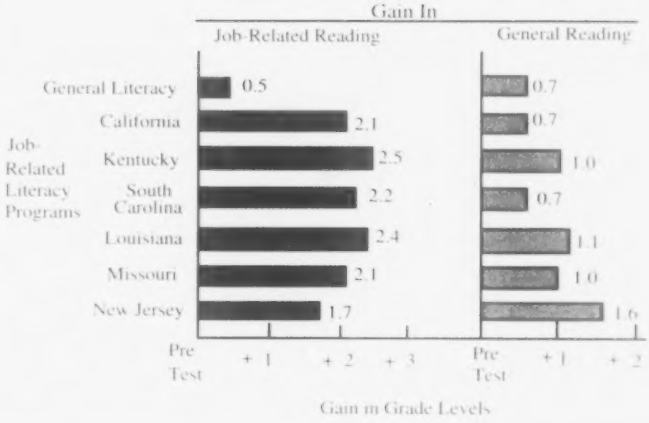
Because most of the new recruits in the military's literacy programs of the late 1960's and the 1970's were not at the very beginning levels of reading — most had skills at the fourth to sixth grade levels — emphasis was on reading for comprehension and thinking. For instance, in one curriculum, concepts from the behavioral sciences were used to create a competency-based, individualized, self-paced series of modules on the use of tables of content, indexes, the body of manuals, procedural directions, and filling out forms. This strand emphasized the performance of "reading-to-do" tasks. In these, information was found in job materials, held in working memory until applied, and could then be deleted from working memory without storage in long term memory.

A second strand of activities focused on "reading-to-learn" tasks. In these, new knowledge in long term memory was constructed from information brought into working memory and integrated into old knowledge already in long term memory. This strand of activities drew on cognitive science research on the importance of multiple modes of representing knowledge. Personnel, working alone or in teams, read passages about first aid procedures and were taught to draw pictures about what they read to bring their prior knowledge to bear on providing a context for the first aid knowledge. They also learned to draw flow charts of the first aid procedures to develop analytical, procedural, thinking skills and to acquire the new content at a "deeper" level. By learning to make classification tables from passages of connected prose, they could better compare and contrast various types of materials, equipment, or methods, such as different communications techniques, for example, hand and arm signals, messengers, telephones, radios.

General literacy programs geared toward improving the ability of personnel to read their job materials were already in place. The new job content-based programs were

compared to these. The studies showed that general literacy programs made only small improvements in participants' abilities to read and comprehend job-related materials in the six weeks of full-time study permitted for literacy training. But in the same amount of time, the job-content literacy programs made about as much improvement in general literacy as the general literacy programs made, but *three to five times* the amount of improvement in job-related reading that the general literacy programs made (see Figure 1). Sticht et. al. (1987) provide detailed sources for statistical analyses for the more than 12,000 adult students in the general and job-related literacy programs of Figure 1, along with other studies and data related to content-based literacy instruction in job contexts.

Figure 1 In a comparison of general and content-based adult literacy programs, both of which aimed at improving job-related reading, the content-based programs of job-related knowledge produced as much gain in general literacy as general literacy programs did. But three to five times the gain in job-related reading that the general literacy program made.



Applications

The job-content-based approach to literacy development has been applied to content-based adult literacy instruction in civilian contexts, particularly in workplace literacy programs. Adults generally want literacy improvements to pursue some other goals, such as getting their citizenship, improving their parenting abilities, getting into post-secondary education, or getting into a job or into job training. The latter is certainly true for the millions of adults who wish to get off of welfare and into a good, well-paying job.

Many research and demonstration projects show that reading can be taught using the content of job training — or other contents, such as parenting, religious study, health, — right from the beginning levels of learning to read. Adults who want job training and are at the beginning levels of reading can learn and practice decoding skills during a part of the study period; during the rest of the period they can learn job vocabulary and concepts by listening to audio tapes, by "hands-on" experiences with job tools, demonstrations, conversations, and illustrated books. If the adults have difficulty learning decoding by phonics, they may need training in phonemic awareness, so they can hear the different sounds in the oral language, before they proceed with learning phonics knowledge. Those with fairly well-developed decoding skills can engage in practice reading in job-related materials to develop word recognition and comprehension skills. They can learn analytical thinking skills that involve the use of graphics technologies such as lists, matrices, flow charts, and illustrations.

By embedding literacy learning within the content of job training, adults can more rapidly progress from literacy education to job training to work. But to become broadly literate, adults must engage in wide-ranging reading for some years. Research indicates that it may take typical children six to eight years to become as competent in reading and comprehending the written language as they are at understanding oral language (Sticht & James, 1984). It takes the typical reader with high school skills 12 years of reading broadly across a number of content areas — science, literature, history, to become a 12th grade level reader. So becoming highly and broadly literate when starting from a low baseline of both knowledge — vocabulary, concepts — and automaticity of word recognition takes a long time.

Adults, however, typically do not have a long time to learn literacy. For this reason, the content-based approach combines decoding and comprehension education with relevant content learning. This offers the fastest way to get adults from basic literacy to entry level competence in reading in some desired domain. Then, by following a program of lifelong learning, including continuous, well-rounded reading, a person can become literate enough to qualify for higher education or advanced job training to move into better paying careers or to simply enjoy the many personal, social, and cultural benefits of higher knowledge and disciplined thinking skills.

continued on page 10

87

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Too Little Time and Too Many Goals

Suggested Remedies from Research on Workplace Literacy

by Larry Mikulecky

Like most literacy programs, workplace literacy programs often have multiple goals, including improved competence in general literacy, in life skills, and in work-related literacy tasks. At the same time, literacy programs often provide very little in-class instructional time: 50 hours or less (Mikulecky, Lloyd, Horwitz, Masker, & Siemantel, 1996). Programs report, however, that it takes most learners quite a bit more time than that to achieve even one grade level of general literacy gain (Mikulecky, 1989). To further complicate things, research on literacy transfer shows that the ability to take literacy skills learned in one mode of text and content, such as literature, and apply them to another, such as chart reading, is fairly limited for most people (Mikulecky, Albers, & Peers, 1994).

This presents a real challenge. Research performed by a team of researchers at Indiana University provides support for one way to meet this challenge: anchor instruction to functional materials and tasks that students regularly encounter outside of class. In-class instruction with material familiar to learners — material they use daily — is much more likely to transfer to tasks relevant to them (Mikulecky, Albers, & Peers, 1994). The opportunity to use literacy successfully outside of class can increase motivation and multiply practice time. When practice is more intense and condensed into fewer weeks, learner gains become more apparent and senses of personal effectiveness increase, so the cycle of continued practice and success is more likely to continue. In the article that begins on page 6, Sticht discusses the rationale and some of the research base for using a "functional context" approach to custom design adult literacy instruction.

Functional Context in Workplace Literacy

Functional context in workplace literacy programs does not necessarily mean just using workplace-related materials. Some programs mix job-related materials with other literacy materials used by learners for hobbies, religion, or child-rearing, for example. Some even provide literacy support for other academic classes. In actual fact, the label "workplace literacy" has been used to describe nearly the entire range of adult literacy programs, including General Educational Development (GED), English for speakers of other languages (ESOL), and family literacy programs offered at the workplace. In a recent survey of 121 workplace literacy programs, 45% reported a major or solitary program goal of improving work-related literacy skills. Another 45% of these workplace literacy programs reported a

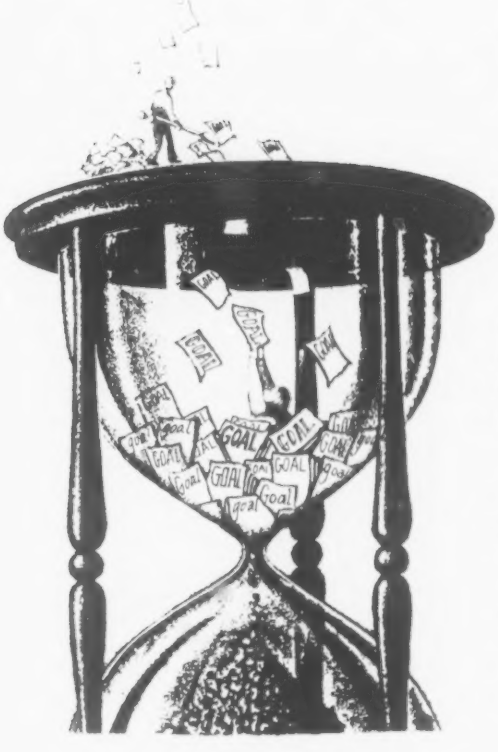
88

combination of job-related and general skills goals (Mikulecky, Lloyd, Horwitz, Masker, & Siemantel, 1996). A functional context literacy program with both general skills goals and work skills goals employs a matching mix of materials.

Literacy instruction can be linked to the learner's daily functional context in several ways. Some program designers interview learners and others to determine the sorts of literacy tasks learners encounter and have difficulty performing. Observation and think-aloud sessions with experts at performing these tasks can produce a clearer understanding of the literacy strategies, vocabulary, special knowledge, and materials required to successfully perform tasks. This process is sometimes called a literacy task analysis and can serve as a foundation for developing custom-designed learning activities. The analysis can also help program designers and instructors to select appropriate off-the-shelf learning materials. The third chapter of the book *Developing and Evaluating Workplace Literacy Programs* provides some guidelines on how to do such custom designing (Mikulecky, Lloyd, Kirkley, & Oelker, 1996).

Transfer and Practice

As mentioned earlier, the short duration of most workplace literacy programs makes it particularly important that class instruction lead to increased literacy practice and transfer outside of classrooms. This is one reason for using a functional context instructional approach, which builds instruction upon tasks and materials from learners' daily lives. Recent case studies of 12 learners in workplace literacy programs have focused on what distinguished from others those



learners who made significant changes in literacy life-styles outside of class (Mikulecky, Lloyd, Siemantel, & Masker, 1997).

We drew information for the 12 learner case studies from a series of classroom observations, assignment and materials analyses, teacher interviews, learner interviews, interviews with family members and coworkers, and learner weekly practice reports. Learners came from five classes in three different workplace literacy programs. The programs were located at a cosmetics firm, a medical instruments firm, and an urban adult basic education center which served municipal employees.

We performed cross-case-study analyses to identify similarities and contrasts when comparing learners who made high, moderate, and low changes in literacy practices and attitudes outside of class. Some clear differences between the high and low change group appeared.

Findings

Learners who had clear learning goals upon entering programs made the most change in literacy practice outside of class. Nearly every learner in the high-change group expressed at least one clear learning goal and more than half reported several goals, while three of the four learners in the low-change group expressed no clear learning goals at all. One high-change learner was articulate about multiple self-improvement goals, another seemed nearly driven to complete the GED so he could become a police officer, and a third repeatedly expressed a strong desire to improve in English enough to participate in team meetings.

The views expressed by students who made little change were quite different. When asked about goals, learners who made little change outside of class expressed reluctance to be in class, vagueness about why others had suggested they enroll, and, in the case of one learner, a belief that she did not really need the class. Only one learner significantly expanded her learning goals while in class. Goals coming in mattered.

Learners who expanded their literacy practices perceived their daily literacy demands to be high — and often new —, while low-change learners perceived few literacy demands and opportunities. Four of the five in the high-change group had recently experienced promotion or job restructuring which placed

new and greater literacy and language demands upon them. Several in the high-change group reported reading to children or reading with children to monitor school assignments.

This contrasted sharply with the low-change group. Some of these parents perceived no literacy opportunities or demands related to their young children. One reported she could avoid most literacy for her job and did not like to read much at home. This learner, who reported low perceived demand on the job, had the very same job as a high-change learner who reported several literacy demands required to do the job well. A third low-change learner reported facing no job literacy demands beyond cosmetic bottle labels and a few forms.

Nearly every high-change learner reported high rapport with an instructor while low-change learners reported neutral rapport. No one in the low-change group reported having much positive rapport with her instructor, although it should be noted that none reported negative rapport, either. The findings were different with the high-change group. One learner in the high-change group came to class primarily because of previous positive experiences with her teacher. A second began to pattern his own work and home behavior upon the patient, collaborative models of his instructors. A third found her link with her instructor to be a pathway to exciting new possibilities, and the fourth high-change learner trusted his teachers sufficiently to do whatever they asked of him as he became aware of his own improvements and changes. Only one learner in the high-change group did not indicate strong positive rapport with his instructor though he worked effectively with his instructor.

Class instruction was reported by all high-change learners to be clearly connected to their daily use. This often related directly to work but also to home use with children, religion, daily tasks, and personal activities. For the low-change group, the picture is less clear. For low-change learners, instructors experienced difficulty finding literacy links on the job and met resistance when suggesting links to home activities. One learner's job required little literacy and she seemed interested in little related to literacy at home. For a second low-change learner, the instructor was able to make a few links to the learner's home repair activities but faced the daunting task of dealing with a learner whose new job had become devoid of literacy connections. Two other low-change learners resisted help with current job literacy demands, that is, one preferred to avoid them, the other could already do the relatively simple tasks and resisted instructor attempts to make links to home literacy use. Both learners reported themselves as uninterested in changing and as relatively happy with their lives. One claimed that her husband read most of the materials at her house, and the other felt she could read well enough for her needs.

Implications

Brief workplace literacy instruction is of questionable worth unless it is designed to expand literacy use and effectiveness outside

How Much Practice and Functional Context is Sufficient?

My colleagues and I recently performed a study of several different workplace literacy programs. We used observations, interviews with learners and instructors, curricular materials, planning documents, and custom-designed tests to examine the impact of instruction upon 180 learners in ten different classes in a variety of workplace settings (Mikulecky & Lloyd, in press). One of the questions we addressed was: What intensity of several instructional practices, such as reading and writing practice, use of workplace examples, discussion of literacy processes, discussion of literacy self-efficacy, and discussion of future plans, did classes need to incorporate for learning gains to occur? Among the findings were the following:

Use of the vast majority of class time for literacy practice was important.

Learners in programs spending more than 70% of course time reading and writing had a mean gain more than three times that of the other learners in terms of expanded sophistication of literacy strategies.

Significant workplace literacy improvement did not come without practice using workplace materials.

Learners who used workplace examples in class more than 20% to 30% of the time demonstrated gains in workplace literacy abilities of nearly twice that of learners using workplace linked materials less often.

Changing learner attitudes and educational goals required regular, planned, brief discussion.

Learners who had regular brief, planned discussions about their own literacy improvements as well as future educational options demonstrated gains in reading scores which were nearly three times that of the other learners. They also significantly outperformed other learners in terms of developing more concrete educational plans and developing a stronger self-concept about their own literacy abilities.

– by Larry Mikulecky

"Be aware that you are likely to be teaching more than just literacy."

the classroom. Using a functional context approach can sometimes help achieve goals of transfer and increased practice, but by itself is often not enough. The case studies have several implications for program developers and instructors.

Establish regular class and individual time to help learners develop and refine learning goals. Lack of goals, extremely limited goals, or unclear goals appear to severely limit transfer and practice outside of class.

If transfer beyond the classroom is desired, spend time early — preferably before developing the class — determining the literacy demands and opportunities faced by each learner in the workplace and home.

Try to actively develop positive rapport and develop links to learners' lives. This is always a good idea, but appears to be especially important with adult learners in brief workplace literacy classes.

To increase the likelihood of transfer, aim for a mix of learner-centered and workplace-centered goals and activities. Situations where these two overlap are likely to bring about the most success.

Be aware that you are likely to be teaching more than just literacy. Many learners reported transferring to home and work use the discussion, listening, and collaborative methods modeled by their instructors.

Summary

Literacy instructors, be they in the workplace or not, have precious little time with their learners. For this reason, it is very important to not squander limited instructional time in an attempt to accomplish too many goals. Since class time is so brief, one goal which should be at or near the top of all instructor lists should be increasing the amount of time learners practice both in and out of class. Several means for doing this have been discussed in this article.

Learner change is rarely accomplished using a single means, whether it be using a functional context approach, establishing rapport, discussing learner goals and plans, providing feedback about increased learner effectiveness, or making links to work and home literacy opportunities. A mix of instructional elements is called for. It also appears that until learners see a personal need for continued growth, their prolonged literacy instruction may be a waste of everyone's time. At the very least, helping these learners to see literacy opportunities and demands is as important as time spent linking instruction to tasks which employers or instructors see as important. Worker and learner involvement in selecting tasks for customized instruction is a sensible way to accomplish several goals at the same time.

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Hooked on Learning

The Internet Poetry Project Changes Teacher and Students

by Linda W. Parrish

The Adult Education program at Swainsboro Technical Institute, Swainsboro, Georgia, started with one instructor, a trailer for an office, and an old grocery store shopping cart in which to trundle our books from borrowed classroom to classroom. We now have two full-time instructors, an intake specialist, our own classrooms and offices, and a 25-station networked computer lab. I have been teaching English and reading here since 1990. Gail Ward, the math instructor, and I work closely together. She runs the computer lab while I teach classes in the morning. After lunch we switch places; she teaches math while I run the lab.

A while ago, a walk through our new computer lab started me thinking: could I use technology as a hook to interest students in writing? Soon after that, I read a case study of a high school teacher's "Cyber English" class (Brandjes, 1997). The teacher, Ted Nellen, states that because of the non-traditional focus and structure of his computer-based writing class, it worked well for his at-risk learners. Perhaps it would for mine. In this article, I will share what I found as I tried approaches in content-based instruction and technology that were new to me.

Our Situation

Most learners in our adult education program are in their 20's and 30's and have dropped out of school before completing ninth grade. Some are young single mothers; most have few marketable skills. Our classes also contain women with years of work experience who have lost their jobs due to plant closings. A large percentage of the students are studying to pass the GED examination.

Nancy Bailes, our intake specialist, assesses new students' reading, language, and math abilities with the Test of Adult Basic Education (TABE), and we group them into English and reading classes by reading ability. The pre-GED level readers are scheduled into the writing class, which usually has ten to 12 students and meets five hours a week for ten weeks. The Introduction to Poetry unit lasts for three weeks.

As I gained experience teaching these students, a question arose: How can I help them prepare for the Literature and Arts part of the GED? Their answers to reading surveys revealed that they read little outside of class. Students said that the Literature and Arts test was difficult. I suspected that they were not reading literature and did not understand its symbolism and imagery. Most had dropped out of school before they had taken an English literature class.

I had always conducted classes the traditional way: as the instructor, I had answers and knowledge which I imparted to the students; they in turn echoed that knowledge by their performance on tests. The educational agenda was mine. I asked the questions and provided the answers, using lecture, demonstration via overhead transparencies, and some small group work. I could not help noticing that my students were often passive learners. They were polite, they usually did what I assigned, but they exhibited little excitement about their learning.

New Thoughts

Networking and reading during a variety of projects exposed me to other thoughts about teaching and learning. I read about diverse learning and assessment models, and my teaching vision began to alter. A second question arose: How can I help learners to ask their own questions about literature and make poetry fun?

Some of the reading that influenced me included the work of Paulo Freire (1986), who wrote that just as it is impossible to teach without content, it is impossible to teach intellectual discipline unless learners can become increasingly active and critical thinkers.

Andrea Herrmann (1989) advised that the dynamics of peer collaboration and feedback in classrooms where computers are used to teach writing differ from that in traditional classrooms. Various classroom studies suggest real benefits for students who can interact effectively with their peers. "Computers as writing tools appear to promote a collaborative environment, both in learning to write and in learning to use the technology." She seemed to be emphasizing that computers in the writing class, if used effectively, could promote active and collaborative learning.

Rena Soifer and her colleagues seemed to sum it up when they wrote, "to be literate in today's world people must also feel comfortable using technology," and, "By engaging in a range of communication activities about a topic of interest, learners gain confidence in listening, speaking, and participating in groups as well as reading and writing." (Rena Soifer, et. al., p. 3, TESL 1990).

As a practitioner researcher in a project sponsored by the University of Georgia, I was to pose questions based on problems I encountered in my teaching practice, propose and carry out a plan to solve the problems, collect data based on my classroom experiences, and, finally, analyze the data and draw conclusions. As my thinking shifted, my original questions evolved. Now they were: 1) How can I help students to be participatory, cooperative learners instead of passive learners? 2) In what ways will using computer technology prepare them for the GED?

Hypothesis

My hunch was that many adults are attracted to computers because they present information in a new, fun way and because the Internet is a status symbol. I believed that if I could get my students asking questions in class and then finding answers to those questions on the Internet, and if I could also get students writing to me via e-mail, that they would become eager participants in the learning process. In addition, by having students use the literature module of PLATO software as well as do onl: research about poetry and classroom writing projects, I expected them to be prepared for the Literature and Arts component of the GED examination.

The Project

I began the writing class by asking them if they would like to be in an experimental class where we would use our own questions and the computers to learn. They readily agreed. We started with an introduction to poetry. I gave them a diverse sample, from Alan Seeger's "I Have a Rendezvous with Death" to Shel Silverstein's "Plugged In." I read some poems aloud, and they took the rest home to investigate on their own. The students and I generated seven questions about poetry: Why do people write poetry? What kinds of people write poetry? Why doesn't it always rhyme? What's the secret to writing poetry? What's the difference between a poem and a paragraph? Where does poetry come from? Where do titles come from? I was

trying to spark student interest, and I wanted their questions to give direction to class discussions that would come later.

I had previously researched poetry on the Internet and had found ten web sites for the students to investigate during their lab hours. Their first assignment was to go to these sites and find five poems that spoke to them, to print out the poems, and to e-mail the list of poems and authors to me. We had poetry anthologies in the classroom they could use, and I suggested they visit the public library if they could not find poetry they liked on the Internet.

Gail and I guided them, step by step, in learning how to get on the Internet, navigate the web sites, and send e-mail correctly. We encouraged them to help one another. Students who had been in lab the previous quarter mentored the new ones as they learned how to use the technology. The students' comments to Gail and me in the lab were positive. One young man was surprised that many poems did not rhyme; another student asked where the poets got all their words. I was pleased to observe their enthusiasm.

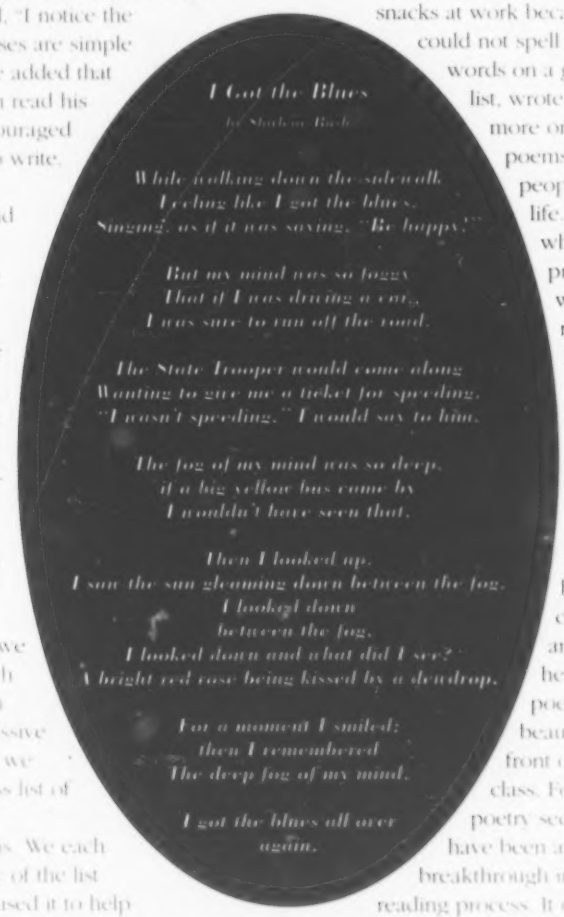
The five poems were to be the start of each student's poetry notebook. I was surprised to find that several students were writing their own poetry; they put original pieces in their notebooks and sometimes shared them with us in class. Surprising, too, were their choices of poems. I had expected the love poems, the modern, profane language, but they also chose classics such as "The Charge of the Light Brigade," "The Raven," and "I Wandered Lonely as a Cloud."

Back in the classroom, I divided the class questions into three and gave the three groups a section of questions each to answer and report to the class. They used encyclopedias, the PLATO software, and the Internet poetry sites for their research. I observed cooperative learning. Small group work was not new to my students; they always enjoyed it. However, the focus this time was on their questions, not mine.

A local poet came to class to read his poems and answer questions about the creative process of writing poetry. As he spoke, the students listened attentively and made interested comments. They asked questions: Does your work — as a

correctional officer — affect your poetry? When you wrote the poem about your mama, were you upset or angry? Do you think anybody can write poetry? How long have you been writing poetry? One student commented, "I notice the words he uses are simple words." She added that hearing him read his poetry encouraged her to try to write. After class students said that they enjoyed his visit.

The highlight of the project for me was the final assignment. The students and I jotted down the first three things that we noticed each morning on three successive days. Next, we made a class list of everyones' observations. We each took a copy of the list home and used it to help generate an original poem, then read some of our poems in class. Those who wished to further share their poems typed them on computers and posted them on the class bulletin board. It was a successful exercise in collaboration. Every student — and I — wrote a poem. Speaking as both struggling poet and instructor, composing poetry as we did is easier than inventing it all by yourself because you can draw from the whole group's observations that are shared on paper. A student remarked, "It's cool [... walk by the bulletin board] and see your list of stuff in somebody else's poem."



I Got the Blues

by Shakeia Rachel

While walking down the sidewalk
I feeling like I got the blues.
Singing, as if it was saying, "Be happy."

But my mind was so foggy
That if I was driving a car,
I was sure to run off the road.

The State Trooper would come along
Wanting to give me a ticket for speeding.
"I wasn't speeding," I would say to him.

The fog of my mind was so deep,
if a big yellow bus came by
I wouldn't have seen that.

Then I looked up.
I saw the sun gleaming down between the fog.
I looked down
between the fog.
I looked down and what did I see?
A bright red rose being kissed by a dewdrop.

For a moment I smiled;
then I remembered
The deep fog of my mind.

I got the blues all over
again.

Changes

David, a young man who would not volunteer to go to the store for snacks at work because he could not spell the words on a grocery list, wrote four more original poems about people in his life. Janice, who has problems with reading, found other Internet poetry sites, printed many pages for her collection, and read her original poem beautifully in front of the class. For Janice, poetry seems to have been a breakthrough in her reading process. It quickened her interest in reading as nothing else had.

By the end of the unit on poetry I had a lot of data to analyze: typed assignment sheets, class questions, e-mailed correspondence, and original poems. In addition, I had kept an electronic journal during the class and had taped interviews with three of the students. In reviewing the data, judging by their comments and enthusiasm, using computers and the Internet did help spark students' interest in poetry. I believe they were better prepared for the GED test after they completed the poetry unit; however, there are so many variables that my conclusion would be difficult to prove. One limitation of the project is that it was not set up to compare groups of students.

Members of the class have suggested innovations such as creating individual notebooks of their original poetry and printing their poems on fancy paper. I would like to publish student poetry on our Adult Ed Home Page or in a printed anthology.

From my perspective, I have always wanted the study of language and literature to be fun, not dry or boring. Using a participatory approach to teach poetry, having students ask and answer their own questions using computers, became a joy for me. ❖

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About the Authors

After rearing two children, *Linda Parrish* returned to teaching in 1989. She became a Literacy Volunteers of America (LVA) reading tutor and trainer and was hired by Swainsboro Technical Institute, Swainsboro, Georgia, as its first Adult Education instructor. She now teaches reading, English, and writing with technology classes and directs the skills lab for part of the day.

Bert Matthew Hinds was a student in Linda Parrish's technology writing class. ❖

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The Process and the Product

Involving Students in Choosing Content and Developing Materials Leads to Change

by Char Ullman and Aliza Becker

In 1994, the Chicago-based Heartland Alliance for Human Rights and Human Needs received a grant from the Lila Wallace Reader's Digest Foundation to enhance the quality of English for speakers of other languages (ESOL) instruction at community-based organizations (CBOs) through a collaborative curriculum development project. Five Chicago CBOs were invited to participate in the two-and-a-half year endeavor. Some were chosen because of their long history in providing ESOL services in the area, others because they were representatives of Chicago's many immigrant communities, and still others were included because of their interest in the project goals. Centers serving the needs of Latin American immigrants and centers catering to Polish immigrants sent teachers and administrators to the project, as did centers which serve immigrants from a wide variety of backgrounds. Teachers came with varying levels of professional preparation; some shared linguistic and cultural roots with the people they taught, others did not.

Content-based instruction in the teaching of ESOL can be carried out in many ways. In our project, it meant finding out what content really mattered to diverse groups of adult ESOL learners, and then creating a text that would actually be used. Since the content used in this project was what learners wanted to know and not what teachers wanted to teach, the teachers had no choice but to become facilitators in the classroom. This experience caused many of them to rethink their own ideas about what it means to be a teacher.

Theoretical Underpinnings

The basic belief behind the project was that teachers — even beginning teachers — come to the classroom with lots of knowledge about their lives and with some knowledge of their students' lives. Our goal as teacher educators was to give teachers tools they could use to learn more about their learners so the curriculum could relate most appropriately to the learners' lives. Once the teachers began to listen to students about curriculum, their classrooms began to change. Many times the learners knew more about the subject matter than did their teachers. Students had both correct and inaccurate information, and teachers and students found they had to work together to become well informed.

What were once classrooms in which teachers deposited knowledge in students' heads — the "banking concept of education" (Freire, 1970) — started to become classrooms in which learners and teachers were learning together. This model owes much to the work of Paulo Freire and to those who have developed participatory approaches to teaching ESOL in the U.S., such as Elsa Roberts Auerbach and Graciela Wiesemann. We also embraced the idea that knowledge is understood to come from teachers, students, and texts (Auerbach & Wallerstein, 1987). We tried to create praxis — that is, to find that place where theory and practice can meet and energize each other. Sometimes we were successful.

Finding the Content

Aliza Becker, the project director, began the development process by offering workshops on linking issue-based narratives and an introduction to content-based instruction. At the same time, Aliza showed teachers and administrators how to lead focus groups. This proved to be invaluable. Many people reported that they had never before listened so intently to their students and were quite moved by the experience. Some used translators to facilitate communication with students whose languages they did not share, and several of the teachers found that a theme for the content of the curriculum was beginning to emerge.

Again and again, across immigrant groups, students said that they wanted to learn about their rights as immigrants. People wanted to know what their rights were at the Immigration and Naturalization Service (INS), came to their workplaces. They wanted to know how to get driver's licenses when they were undocumented, and how to become legal residents. This topic, coming at a time when anti-immigrant sentiment was increasing, first began INS raids of manufacturing plants had increased sharply. Just after our Proposition 187, which was [illegible] to deny educational and medical services to the undocumented, had passed, immigrants' rights were without question the most critical issues to them.

With this in mind, Aliza conducted a literature search to find ESOL materials dealing with immigrants' rights. She found only a couple of texts that dealt with immigrants' rights, and a few more that had

chapters that touched on the subject. When she contacted immigrants' rights organizations, she found a number of books and pamphlets that had useful information, however, these pamphlets were not readily adaptable to the classroom. Teachers sometimes used these materials, but they complained that many of the topics that most interested their students were left unaddressed. Teachers usually invited guest speakers to talk about immigrants' rights, but they really did not know how to incorporate this content into their classrooms. The need was clear. The challenges were how to educate ourselves about this complex subject, how to approach a topic that had not been dealt with in this depth before, and how to create the text as a group.

Creating the Text

Once teachers decided that they wanted to create a book, Aliza got me involved in the project. A former editor of ESOL textbooks, I asked the group to do what is commonly done in publishing companies: to write a vision statement that articulated the group's beliefs about language and culture and their perspectives about teaching and learning. The vision statement needed to describe the book's audience as well. We would use the statement to guide our development of the text. Because the teachers' perspectives were varied, creating this statement was, at times, difficult.

After we agreed upon a general vision, we hammered out a format, or a "thumbnail sketch" of features that each chapter might contain. Chapter topics were chosen because they came up frequently in the focus groups, in class discussions, or in students' writing. Inspired by a workshop on learner-generated narratives, the group decided that an authentic student story would open each section. Some teachers already knew of student stories that related to the topics and asked those students for permission to include their stories in the book. Other topics were suggested by teachers as writing assignments, and teachers approached those learners about including their work. The question of whether or not teachers should edit students' stories was hotly discussed, and we finally decided that learners would get a chance to rework their stories on their own first, or have them edited at that moment, by the teachers. Learners were not involved in the decision, but in retrospect, it would have been a good idea to involve them. In the end, all stories were edited.

At this point, teacher chose small groups comprised of people with whom they felt they could work, and each group began to write a chapter of the text. This collaborative approach, although probably effective in other situations, resulted in prolonged discussions that often prevented any writing from happening. Some teachers came to the project with years of teaching experience and degrees, and others had with little experience and no relevant training. In this situation, leadership was needed.

Much more successful was this: each group had a leader, and the goal of the group became not to write the chapter, but to offer suggestions to me and, later, to Aliza, who would write the chapter and turn it back to the group for revisions. This worked well not only with the personalities of this particular group, but also with the amount of time that was allotted each week for this work. Lawyers reviewed each chapter, clarifying the differences between local, state, and federal jurisdictions, and guiding us on legal issues.

We established a process in which teachers brain stormed ideas, the curriculum developers implemented those ideas, and the teachers guided revisions of the text, usually three or four times. We learned that doing extensive revisions on the first draft was time consuming and not particularly fruitful. Teachers' time was best spent in field-testing the material with learners.

In the field testing stage, teachers were no longer working with other teachers or with administrators, but were in the classroom with students. The teachers and students showed us how to improve the material. By actively engaging the learners in a critical analysis of the text, we learned where the book came alive

and where it fell flat. One teacher and his students pointed out exercises that were too easy, and suggested alternatives. "This approach," the teacher wrote, "forced students to focus on what they really did want to learn." That is, students did more than just choose the topics, they discussed the details of how those topics were presented, and, in doing so, had to think more specifically about what they wanted to learn than just absorbing what the teacher presented them with. He thought that it helped them take charge of their own learning and facilitated their setting goals for themselves.

When teachers returned to the project after field-testing, they were full of ideas about how to revise the text. With paid time to make these revisions, a text that reflects actual learner and teacher needs was born.

To Be a Teacher

One of the stumbling blocks that many of the teachers encountered during the course of this project was about confronting their fears of teaching a subject about which they knew little. When the content is the language itself — grammatical forms and their use, for example — the teacher is the expert. But when language is being used to learn about how visas are granted, the teachers found that they were no longer the experts. Sometimes learners knew more about these topics than the teachers did. Sometimes, as mentioned earlier, learners had contradictory or incorrect information.

The immigrants' rights content made teachers ask questions along with students. One teacher wrote in her evaluation of the project that "my knowledge of the content was not high, so I often couldn't answer specific questions. However, I tried my best to direct them to resources they could utilize." Since this content was of high interest to the learners, and because the teachers had little previous experience with it, teachers had to transform themselves into facilitators, learning alongside their students.

Another change occurred. As the teachers in this project thought and talked about textbooks, they became more critical. The mystery was taken out of textbook publishing, and one teacher mentioned that he was starting to realize how poorly constructed some textbook exercises are. Many of the teachers in this project learned to learn with students, and in the process, gained confidence about crafting their own materials, an important step on the path toward more liberatory teaching and learning.

Conclusions

In conclusion, the model we used can help teachers to find out what content their learners really want to learn. Conducting focus groups with students is one way to start this process, and teachers in almost any setting can do this. Even if the materials are not created from scratch, as was done in this project, beginning the process by really listening to learners is essential. From there, teachers can combine already-published materials with learner-generated and teacher-generated materials, and even get advice from community experts, as we did with immigration lawyers. This approach to developing content-based instructional materials has the potential to greatly improve language teaching and to transform the lives of learners and teachers as well. ❖

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97

The Impact of Content-Based Instruction: Three Studies

by Barbara A. McDonald

The "content" in content-based instruction can vary widely. One area that has embraced content-based instruction is vocational education. By simultaneously teaching vocational and academic skills, — reading, writing, mathematics, or English for speakers of other languages (ESOL) — students can move through a program more quickly than if these skills are taught sequentially, academics first. In addition, since vocational skills are usually taught in a hands-on manner, and are directly linked to gainful employment, the content-based approach should provide motivation: learners learn more, faster.

Empirical research should prove this to be true. The impact of content-based instruction, however, has not been a priority in the field of adult literacy, as Tom Sticht points out in the article that begins on page 6. Studies have been done of discipline-based approaches to learning language in college, and of the Canadian French immersion programs, in which English-speaking students were put directly into public school classes (Wesche, 1993). These show increased learning. Not much is known about students with lower-level basic skills.

Similarly, few empirical studies examine the impact of adult basic education methods. Those that are done are often difficult to interpret for methodological reasons. For example, many studies use an "after the fact" methodology, surveying individuals who have been in a program about how they liked it. Usually the only people who answer such a survey are those who liked it. The result is findings that are biased towards the favorable. And this tells us nothing about the gains students have made. Sometimes a post-test is given, with no pre-test available for comparison. In that case, we don't know whether or not people entered the program with the prerequisite knowledge or if the program can take credit for the change in scores.

A Better Methodology

A study that used both a pre-test and a post-test would be better. We would know how much knowledge and skills people bring to class and how much they gained from the instruction. Of course, we still have potential sources of error. For example, we do not know exactly what happened to the learners from the start of the study to the end. We would be able to say that people learned in our program, but not that they learned more than they would have in some other program.

We have done research using a methodology that tries to address these issues. We used a comparison group: one group received the treatment — content-based instruction — and was compared to a group which did not. Otherwise, the groups were treated in the same ways. Both received a pre- and a post-test. Both groups, or classrooms, were already running, which allowed us to study naturally-occurring variation.

Three Questions

The three studies in this article used the comparison group methodology. We asked several questions about content-based instruction and used different pre-existing groups to answer them. All the classes we studied were participating in a larger project and were answering the same surveys and taking the same tests. Each class differed in either content or process of instruction.

Our first question was whether the content the student wanted to learn was related to the course in which the student enrolled. The second question was whether opportunity to immediately use the information had an effect on retention in the course. And finally, we wanted to know how much "content" and how much "general knowledge" is learned in content-based instruction.

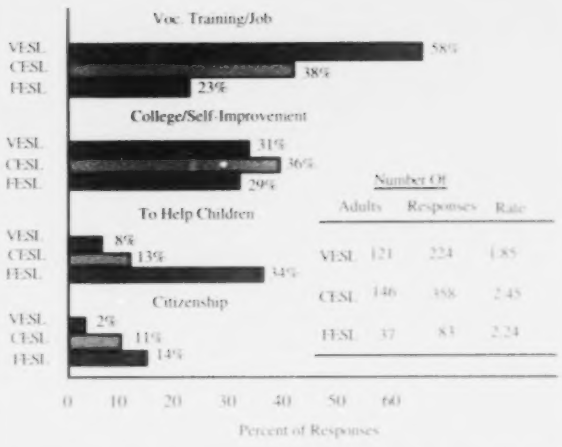
Why Attend?

To gain insight into why adults want to go to school, we conducted a survey of adult students in three different types of ESOL programs. The first type was Vocational English as a Second Language (VESL), in which the teaching of English was accomplished using job-related terminology and tasks. Students in this class were Latino, Chinese, Russian, Vietnamese, and African, and were at the low-intermediate to low-advanced levels of ESOL. The second program type was Communicative English as a Second Language (CESL), in which general conversational and school-related English was emphasized. These students were also ethnically diverse, with ESOL levels ranging from low intermediate to low advanced. The third was Family English as a Second Language (FESL), a special program that emphasized how parents could help with their children's learning and schooling. These students were

primarily Latina and at low-beginning to low-intermediate ESOL levels.

Figure One shows that, in general, adults' stated reasons for wanting to attend ESOL paralleled the type of ESOL program in which they were enrolled. The participants could choose from seven choices. The respondents could check as many of the seven reasons as they wanted.

Figure 1: Reasons Students in Three Classes Gave for Enrolling in an ESOL Program



The analyses of the data provided a glimpse into the reasons adults attended school, and also the degree of focus the learners had in choosing their courses. For example, 58% of the 121 enrolled in VESL were there to get a job. They marked an average of 1.85 choices out of seven. This rate (1.85) was computed by dividing the number of responses given by the number of respondents. A rate of 1.85 shows a high degree of focus, if the respondents thought all reasons for attending were equally important the rate of response would be seven.

The VESL students were less interested in ESOL for college or self-improvement purposes, while these were the most important reasons for those taking CESL, where the average rate was 2.45 choices marked out of seven. Those enrolled in the FESL class were primarily interested in taking ESOL to help their children. Their average rate was 2.24 choices out of seven, which is less focused than those taking VESL.

Focus and Completion

We next investigated whether the learners' purposes for taking an ESOL course and the closeness of fit of the course to these purposes was related to whether students completed the course. To do so, we examined three different VESL classes. One class was in electronics assembly, was very strong in placing people in jobs, and lasted only ten weeks. Students in this class were Vietnamese, Laotian, Chinese, and Latino, and were at the high-beginning to low-intermediate ESOL levels. This class was considered the most "strongly" focused. The second class was in office technology, and lasted 18 weeks. Students were Latino, Somalian, Vietnamese, and Laotian, and ranged from low-intermediate to low-advanced ESOL levels. It was less strongly focused than the Electronics Assembly class. The third class was a general pre-vocational introduction to different fields such as office technology, automotive trades, and electronics assembly, and lasted 18 weeks. These students were all Latino, with ESOL levels ranging from low intermediate to low advanced. This class was considered the most general.

Figure Two reveals that, in general, the closer the fit between the learners' reasons for taking the ESOL course, in this case, to get a job, the more likely the learners are to complete a greater percentage of the course. This is clearest for the electronics assembly program. Almost 60% of the students who enrolled in week one of the ten-week course completed all ten weeks, and more than 80% completed nine weeks, by which time, many already had jobs in electronics assembly. For the other two courses, both of which were 18 weeks long, the course with the closer link to a particular job field, office technology, had greater persistence rates.

The foregoing data on the closeness of fit between adult learners' reasons for taking an ESOL course and their persistence and completion rates are based on a very small sample, 37, 42, and 47, for the high, medium, and low groups, respectively. Another limitation of the study is the difference in the length and hour requirements of the courses. It may well be that course length has an effect on persistence. However, the medium and low focus VESL classes, which show quite a difference in attendance rates, both last 18 weeks. So, in this case, the different levels of attendance is not explained by course length. This study suggests that closeness of fit between learners' reasons for enrolling and course content and duration of course may both lead to higher persistence on the part of the student. Both possibilities merit more research.

Learning Gains

The third study we conducted investigated learning gains in the content area as well as those in general reading. This study compared the ten-week electronics assembly VESL class with a vocational class in electronics assembly that had no ESOL instruction, and a conventional ESOL class. As Figure Three indicates, the ten-week instructional program produced more gain in vocational

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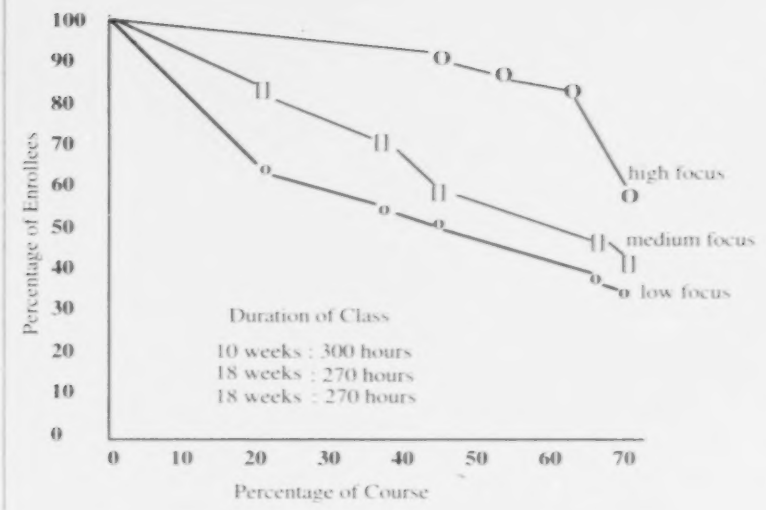
Figure 2 The Percentage of Work Out Into Rates in the Courses as a Factor of Intensity of Focus in VESL Class



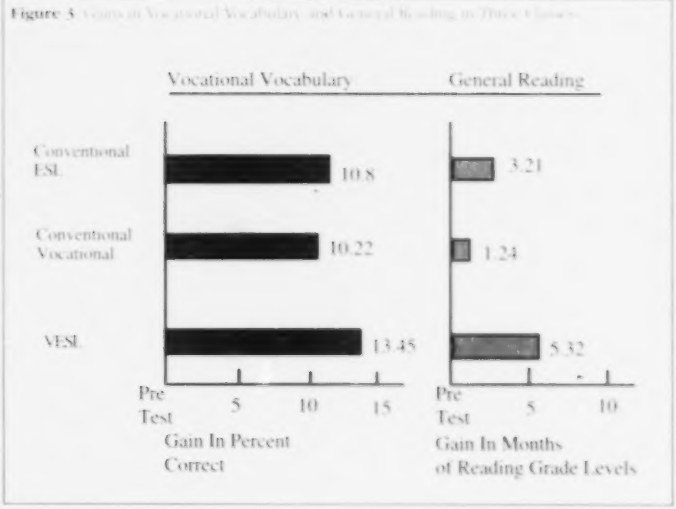
vocabulary and general reading than did a conventional electronics vocational program or a conventional ESOL program. Vocational vocabulary was measured by a test developed by three electronics technology teachers; general reading was measured by the Adult Basic Learning Exam (ABLE).

In this study, students in the six-hour-a-day, ten-week Electronics Assembly VESL program completed more hours of instruction between pre- and post-tests than did the three-hour-a-day, 18-week electronics class with no ESOL, or the three-hour-a-day, 18-week ESOL class. To standardize the number of hours between the three classes, the programs were compared in terms of rate of gain per 100 hours of instruction.

Following this procedure, the vocational vocabulary gain for the VESL program was 13.45, for the conventional vocational course was 10.22, and for conventional ESOL, 10.8. This indicates that the rate of improvement in vocational vocabulary was greater than that in either of the other two programs.

Following similar procedures for the general reading gains gives a rate of 5.32 months per 100 hours of instruction for the integrated VESL program, 1.24 months for the electronics program, and 3.21 months for the ESOL program. Thus the content-based VESL program had a gain rate per 100 hours of instruction some 65% higher for general reading than the general ESOL program, and more than 300% greater than the vocational program.

Figure 3 Gains in Vocational Vocabulary and General Reading in Three Classes



Conclusion

These data lend support to the theory that content-based instruction can lead to equally high gain in general literacy skills as well as job related skills. If one's goal is job training, by combining general basic skills classes with specific content, the amount of instructional time can be reduced. Rather than first raising students' basic skills to some pre-determined level and then enrolling them in vocational skills classes, learners can improve their academic skills while learning a vocation.

These findings need to be replicated with larger samples. In addition, it would be useful to replicate the findings with classes that are of the same duration. While we have some confidence in the findings because they replicate early work, more research is needed.

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About the Author

Barbara McDonald is an experimental psychologist and the director of the CWELL Action Research Center. She is also a lecturer in the Department of Psychology at San Diego State University. For the past 25 years, she has conducted applied research in the areas of adult learning, literacy, and motivation.

Health and Literacy

Content-based instruction serves a dual purpose: learners learn both basic skills and content. Learners interests or the goals of the program often serve to define the content. Sometimes, "outside" agencies, such as the public health department or the census bureau, create partnerships with adult learning programs as a route of entry to the population that they, too, are mandated to serve. The Fannie Mae Foundation, a non-profit organization that provides information about home buying to the public, for example, supported the development and dissemination of an ESOL curriculum on home buying. In Massachusetts, for the past four years, a portion of the tax on tobacco has gone to support the development of health-related activities at a number of adult learning centers.

Researcher Rima Rudd has been involved in Massachusetts' health and literacy activities from their inception. Finding little written about what teachers think of content-based instruction, particularly when the content is promoted by an outside agenda, she chose to explore the experience of the adult educators who were involved in the health and literacy activities in New England. This initial work served as a pilot for a larger NCSALL study she is launching this winter.

To develop the pilot questionnaire, Rudd, who has both public health expertise and familiarity with adult learning centers, teachers, and students, sent a draft of her questionnaire to colleagues for review. The pilot study was to be a test of the questionnaire, so it included questions about whether the questionnaire was meaningful, whether questions needed rephrasing, and whether questions were was missing. The "content" aspect of the questionnaire asked about the respondent's experience with incorporating health topics into the adult literacy curriculum, and the outcome of the health project, both for the learners and the teacher. Other questions solicited information about the perceived value of health as a topic in the classroom. Respondents were also asked to consider a variety of literacy-related curriculum objectives and rate the usefulness of the health project in terms of these objectives.

The sample Rudd used was determined by participation in either the tobacco tax project or a similar project. Of the 31 eligible centers, 24 had staff available to participate in the study. The majority of the hour-long interviews were conducted in person.

Rudd and her colleagues summarized the data and mailed the findings back to the study participants to solicit their ideas about what the data reveals. She asked study participants "How can we interpret this? What do we learn from it? Where are the gaps? Of what use is this to you, the teacher?" She explains her approach to research: "I'm trying to be respectful of the practitioners I work with by combining traditional data collection with participatory problem solving. To do this, I send the findings back to people and ask them to share their reactions."

The pilot yielded information that Rudd used to fine-tune the questionnaire. The response rate was so high — 77% as compared to an expected rate of about 25% — that the findings also stand as a small exploratory study. Although all the analysis has not yet been done, Rudd found that most teachers reported that the health and literacy project increased learners' awareness of health issues and motivated behavior change as well as increased learners reading and writing skills. Almost all of the teachers (27 of 31) reported that the topic (the aspect of health) of the project was chosen because of the adult learners' needs or interest in a particular area.

Teachers were asked if they made changes in teaching styles for the health project. This question stems from the larger inquiry of whether health topics promote certain kinds of teaching methods, compared to other subjects. Of the 31 teachers, 22 changed the way they taught, integrating more active methodologies. Teachers reported outcomes linked to student motivation, confidence, self-esteem, and empowerment. Skill development was also an outcome.

Rudd will expand this study, again, inviting respondents draw meaning from the data. Participants will also receive a bibliography on health literacy. For updates, visit the NCSALL web page at: http://hugse1.harvard.edu/~ncsall, or contact Dr. Rudd at the Department of Health and Social Behavior, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115; e-mail: rrudd@hsph.harvard.edu.

— by Barbara Garner

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English Digest, published by City Family, Inc., 444 Park Avenue South, Suite 402, New York, NY 10016. Subscription $5.95/year, $1.29 per copy. This is a bimonthly magazine for adult English language learners. Regular features include such topics as health, immigration, jobs, consumer information.

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